

ANALYTICAL REPORT

Lab Number: L1825822

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street Lawrence, MA 01843

Thomas McGrath

Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 05/13/19

ATTN:

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320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1825822 **Report Date:** 05/13/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1825822-01	Q1 CAN ID 2290	AIR	Not Specified	07/08/18 11:05	07/09/18
L1825822-02	Q1 CAN ID 954	AIR	Not Specified	07/08/18 11:08	07/09/18
L1825822-03	B1 CAN ID 1638	AIR	Not Specified	07/08/18 11:48	07/09/18
L1825822-04	W1 CAN ID 1570	AIR	Not Specified	07/08/18 12:09	07/09/18
L1825822-05	H1 CAN ID 2290	AIR	Not Specified	07/08/18 12:58	07/09/18
L1825822-06	W2 CAN ID 1645	AIR	Not Specified	07/08/18 13:04	07/09/18
L1825822-07	BL CAN ID 2331	AIR	Not Specified	07/08/18 13:04	07/09/18

Project Number: 101869.00 **Report Date:** 05/13/19

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A res	sponse to questions G, H and I is required for "Presumptive Certainty" status	
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1825822Project Number:101869.00Report Date:05/13/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.							



Serial_No:05131916:40

Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1825822Project Number:101869.00Report Date:05/13/19

Case Narrative (continued)

Report Revision

May 10, 2019: This report replaces the one previously issued on July 24, 2018. The report has been amended to report additional compounds at the request of the client.

MCP Related Narratives

Canisters were released from the laboratory on July 5, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1825822-04 results for Acetone should be considered estimated due to co-elution with a non-target peak.

Sample Receipt

The canister ID number for the sample designated H1 CAN ID 2290 (L1825822-05) is listed on the CoC as 2290 but should be 2292.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative Date: 05/13/19

QC OUTLIER SUMMARY REPORT

Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number:

L1825822

Project Number: 101869.00

Report Date:

05/13/19

					Recovery/RPI	QC Limits	Associated	Data Quality
Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	(%)	(%)	Samples	Assessment
MCP Volatil	e Organics in Air by SIM - Mansfield	Lab						
TO-15-SIM	Batch QC	WG1138152-3	Propylene	LCS	137	70-130	01-07	potential high bias



AIR



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/08/18 11:05

Client ID: Q1 CAN ID 2290 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/22/18 08:41

Analyst: MB

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.416	0.200		2.06	0.989			1
Chloromethane	0.415	0.200		0.857	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.89	1.00		6.87	2.38			1
Trichlorofluoromethane	0.200	0.050		1.12	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.061	0.050		0.468	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-01

Client ID: Q1 CAN ID 2290

Sample Location:

Date Collected: 07/08/18 11:05

Date Received: 07/09/18

Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.032	0.020		0.156	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.223	0.050		0.840	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-01 Date Collected: 07/08/18 11:05

Client ID: Q1 CAN ID 2290 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.031	0.020		0.135	0.087			1
p/m-Xylene	0.093	0.040		0.404	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	0.215	0.020		0.915	0.085			1
o-Xylene	0.035	0.020		0.152	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.045	0.020		0.221	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	12.3	NJ	ppbV		1
Unknown	13.2	J	ppbV		1
Unknown	3.36	J	ppbV		1
Unknown	1.12	J	ppbV		1
Unknown	1.14	J	ppbV		1
Methyl Alcohol	1.19	NJ	ppbV		1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1825822

Project Number: Report Date: 101869.00 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-01 Date Collected: 07/08/18 11:05

Client ID: Q1 CAN ID 2290 Date Received: 07/09/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	140	Q	60-140
bromochloromethane	129		60-140
chlorobenzene-d5	126		60-140



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/08/18 11:08

Client ID: Q1 CAN ID 954 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 22:53

Analyst: MB

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.513	0.200		2.54	0.989			1
Chloromethane	0.560	0.200		1.16	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	3.45	1.00		8.20	2.38			1
Trichlorofluoromethane	0.268	0.050		1.51	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.091	0.050		0.697	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-02

Client ID: Q1 CAN ID 954

Sample Location:

Date Collected: 07/08/18 11:08

Date Received: 07/09/18

Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.032	0.020		0.156	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.084	0.020		0.528	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.143	0.050		0.539	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-02 Date Collected: 07/08/18 11:08

Client ID: Q1 CAN ID 954 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Campio Dopaii	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.022	0.020		0.096	0.087			1
p/m-Xylene	0.061	0.040		0.265	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.023	0.020		0.10	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.13	NJ	ppbV		1
Unknown	1.31	J	ppbV		1
Methyl Alcohol	1.46	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-02 Date Collected: 07/08/18 11:08

Client ID: Q1 CAN ID 954 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	87		60-140



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-03 Date Collected: 07/08/18 11:48

Client ID: B1 CAN ID 1638 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/22/18 09:20

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.436	0.200		2.16	0.989			1
Chloromethane	0.448	0.200		0.925	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	0.021	0.020		0.047	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.80	1.00		6.65	2.38			1
Trichlorofluoromethane	0.209	0.050		1.17	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.064	0.050		0.491	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

 Lab ID:
 L1825822-03
 Date Collected:
 07/08/18 11:48

 Client ID:
 B1 CAN ID 1638
 Date Received:
 07/09/18

Client ID: B1 CAN ID 1638 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.034	0.020		0.166	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.060	0.020		0.377	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.124	0.050		0.467	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-03 Date Collected: 07/08/18 11:48 Client ID: B1 CAN ID 1638

Date Received: 07/09/18 Sample Location: Field Prep: Not Specified

Campic Dopin.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	l Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	0.054	0.040		0.235	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.020	0.020		0.087	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.19	J	ppbV		1
Silanol, Trimethyl-	3.68	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.99	NJ	ppbV		1
Methyl Alcohol	1.21	NJ	ppbV		1



Dilution

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1825822

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-03 Date Collected: 07/08/18 11:48

Client ID: B1 CAN ID 1638 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth: ppbV ug/m3

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	140	Q	60-140
bromochloromethane	133		60-140
chlorobenzene-d5	126		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-04 Date Collected: 07/08/18 12:09

Client ID: W1 CAN ID 1570 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/22/18 09:59

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.454	0.200		2.24	0.989			1
Chloromethane	0.445	0.200		0.919	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	3.36	1.00		7.98	2.38			1
Trichlorofluoromethane	0.223	0.050		1.25	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.064	0.050		0.491	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.388	0.200		1.37	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Name: BAW - WEYMOUTH FORE RIVER Lai

Project Number: 101869.00

Lab Number:

L1825822

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1825822-04 Client ID: W1 CAN ID 1570

Sample Location:

Date Collected: 0

07/08/18 12:09

Date Received: Field Prep:

07/09/18 Not Specified

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.034	0.020		0.166	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	0.302	0.200		1.06	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	0.120	0.100		0.383	0.319			1
Carbon tetrachloride	0.058	0.020		0.365	0.126			1
Cyclohexane	0.211	0.200		0.726	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	0.264	0.200		1.23	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.275	0.050		1.04	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-04 Date Collected: 07/08/18 12:09
Client ID: W1 CAN ID 1570 Date Received: 07/09/18

Client ID: W1 CAN ID 1570 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Campio Doptii.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.049	0.020		0.213	0.087			1
p/m-Xylene	0.154	0.040		0.669	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.054	0.020		0.235	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.043	0.020		0.211	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	0.053	0.050		0.278	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
Methyl Alcohol	1.24	NJ	ppbV		1
Unknown	1.07	J	ppbV		1



ug/m3

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1825822

Project Number: Report Date: 101869.00 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-04 Date Collected: 07/08/18 12:09

Client ID: W1 CAN ID 1570 Date Received: 07/09/18 Sample Location: Field Prep: Not Specified

Sample Depth: ppbV

Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	133		60-140
bromochloromethane	128		60-140
chlorobenzene-d5	124		60-140



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/08/18 12:58

Client ID: H1 CAN ID 2290 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/22/18 10:38

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.447	0.200		2.21	0.989			1
Chloromethane	0.435	0.200		0.898	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.71	1.00		6.44	2.38			1
Trichlorofluoromethane	0.216	0.050		1.21	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.062	0.050		0.475	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-05 Date Collected: 07/08/18 12:58
Client ID: Date Received: 07/09/18

Client ID: H1 CAN ID 2290 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.026	0.020		0.127	0.098			1
Tetrahydrofuran	0.904	0.200		2.67	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.062	0.020		0.390	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.172	0.050		0.648	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-05 Date Collected: 07/08/18 12:58
Client ID: Date Received: 07/09/18

Client ID: H1 CAN ID 2290 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Campic Dopuii		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.023	0.020		0.10	0.087			1
p/m-Xylene	0.064	0.040		0.278	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.025	0.020		0.109	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.23	J	ppbV		1
Unknown	1.17	J	ppbV		1
Unknown	3.98	J	ppbV		1
Methyl Alcohol	1.19	NJ	ppbV		1
Unknown	13.7	J	ppbV		1
Cyclotrisiloxane, Hexamethyl-	12.7	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-05 Date Collected: 07/08/18 12:58

Client ID: H1 CAN ID 2290 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Tiola Frep.

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	135		60-140
bromochloromethane	129		60-140
chlorobenzene-d5	125		60-140



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-06 Date Collected: 07/08/18 13:04

Client ID: W2 CAN ID 1645 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/22/18 11:17

Analyst: MB

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.451	0.200		2.23	0.989			1
Chloromethane	0.442	0.200		0.913	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	0.023	0.020		0.051	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	3.35	1.00		7.96	2.38			1
Trichlorofluoromethane	0.217	0.050		1.22	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.071	0.050		0.544	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.248	0.200		0.873	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-06 Date Collected: 07/08/18 13:04 Client ID: W2 CAN ID 1645

Date Received: 07/09/18 Field Prep: Not Specified

Sample Depth:

Sample Location:

Campio Dopuii		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.031	0.020		0.151	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	0.026	0.020		0.105	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	0.267	0.200		1.25	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.194	0.050		0.731	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-06 Date Collected: 07/08/18 13:04 Client ID: W2 CAN ID 1645 Date Received: 07/09/18

Client ID: W2 CAN ID 1645 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

D!/	ppbV			ug/m3			Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
SIM - Mansfield	Lab						
ND	0.100		ND	0.461			1
0.036	0.020		0.156	0.087			1
0.106	0.040		0.460	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
0.040	0.020		0.174	0.087			1
ND	0.020		ND	0.098			1
0.029	0.020		0.143	0.098			1
ND	0.200		ND	1.04			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND 0.036 0.106 ND ND 0.040 ND 0.029 ND	ND 0.100 0.036 0.020 0.106 0.040 ND 0.020 ND 0.050	ND 0.100 0.036 0.020 0.106 0.040 ND 0.020 ND 0.050 ND 0.050 ND 0.050	ND 0.100 ND 0.036 0.020 0.156 0.106 0.040 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND 0.040 0.020 ND 0.040 0.020 ND 0.029 0.020 ND ND 0.200 ND ND 0.020 ND	ND 0.100 ND 0.461 0.036 0.020 0.156 0.087 0.106 0.040 0.460 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 0.040 0.020 ND 0.085 0.040 0.020 ND 0.098 ND 0.020 ND 0.098 0.029 0.020 ND 0.143 0.098 ND 0.200 ND 1.04 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.050 ND 0.371 ND 0.050 ND 0.371	ND 0.100 ND 0.461 0.036 0.020 0.156 0.087 0.106 0.040 0.460 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 0.040 0.020 ND 0.087 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 1.04 ND 0.020 ND 0.120 ND 0.050 ND 0.371 ND 0.050 ND 0.371	ND

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	2.54	NJ	ppbV		1
Methyl Alcohol	1.34	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	4.01	NJ	ppbV		1
Unknown	1.73	J	ppbV		1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1825822

Project Number: Report Date: 101869.00 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-06 Date Collected: 07/08/18 13:04

Client ID: W2 CAN ID 1645 Date Received: 07/09/18 Sample Location: Field Prep: Not Specified

ppbV ug/m3 Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	130		60-140
bromochloromethane	126		60-140
chlorobenzene-d5	119		60-140



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/08/18 13:04

Client ID: BL CAN ID 2331 Date Received: 07/09/18
Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 16:20

Analyst: MB

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00 Lab Number:

L1825822

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1825822-07 Client ID: **BL CAN ID 2331**

Date Collected: Date Received: 07/08/18 13:04

Sample Location:

07/09/18 Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Foluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 05/13/19

SAMPLE RESULTS

Lab ID: L1825822-07 Date Collected: 07/08/18 13:04

Client ID: **BL CAN ID 2331** Date Received: 07/09/18 Sample Location: Field Prep: Not Specified

Campic Deptil.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.26	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	102		60-140



Serial_No:05131916:40

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1825822

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 15:00

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SI	M - Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	138152-	4	
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1



Serial_No:05131916:40

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1825822

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 15:00

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIN	M - Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	138152-	4	
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1825822

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 15:00

	ppbV		ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
- Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	138152	-4	
ND	0.020		ND	0.087			1
ND	0.040		ND	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.098			1
ND	0.200		ND	1.04			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	- Mansfield ND	Results RL - Mansfield Lab for same state ND	Results RL MDL ND 0.020 ND 0.040 ND 0.020 ND 0.050 ND 0.050 ND 0.050	Results RL MDL Results - Mansfield Lab for sample(s): 01-07 Batc ND 0.020 ND ND 0.040 ND ND 0.020 ND ND 0.050 ND ND 0.050 ND	Results RL MDL Results RL - Mansfield Lab for sample(s): 01-07 Batch: WG1 ND 0.020 ND 0.087 ND 0.040 ND 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.371 ND 0.050 ND 0.371 ND 0.050 ND 0.262	Results RL MDL Results RL MDL - Mansfield Lab for sample(s): 01-07 Batch: WG1138152- ND 0.020 ND 0.087 ND 0.040 ND 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.371 ND 0.050 ND <td>Results RL MDL Results RL MDL Qualifier - Mansfield Lab for sample(s): 01-07 Batch: WG1138152-4 ND 0.020 ND 0.087 ND 0.040 ND 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 </td>	Results RL MDL Results RL MDL Qualifier - Mansfield Lab for sample(s): 01-07 Batch: WG1138152-4 ND 0.020 ND 0.087 ND 0.040 ND 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1825822

Report Date: 05/13/19

Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM	- Mansfield Lab Associ	ated sample(s):	01-07	Batch:	WG11381	152-3			
Propylene	137	Q	-			70-130	-		
Dichlorodifluoromethane	105		-			70-130	-		
Chloromethane	89		-			70-130	-		
Freon-114	88		-			70-130	-		
Vinyl chloride	98		-			70-130	-		
1,3-Butadiene	89		-			70-130	-		
Bromomethane	90		-			70-130	-		
Chloroethane	93		-			70-130	-		
Ethanol	103		-			70-130	-		
Vinyl bromide	83		-			70-130	-		
Acetone	98		-			50-150	-		
Trichlorofluoromethane	108		-			70-130	-		
Isopropanol	85		-			70-130	-		
1,1-Dichloroethene	101		-			70-130	-		
Methylene chloride	87		-			70-130	-		
3-Chloropropene	119		-			70-130	-		
Carbon disulfide	78		-			70-130	-		
Freon-113	86		-			70-130	-		
trans-1,2-Dichloroethene	114		-			70-130	-		
1,1-Dichloroethane	115		-			70-130	-		
Methyl tert butyl ether	102		-			70-130	-		
Vinyl acetate	119		-			70-130	-		
2-Butanone	114		-			70-130	-		



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1825822

Report Date:

05/13/19

Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansf	field Lab Associ	ated sample(s):	01-07	Batch:	WG1138	152-3			
cis-1,2-Dichloroethene	118		-			70-130	-		
Ethyl Acetate	118		-			70-130	-		
Chloroform	116		-			70-130	-		
Tetrahydrofuran	115		-			70-130	-		
1,2-Dichloroethane	128		-			70-130	-		
n-Hexane	117		-			70-130	-		
1,1,1-Trichloroethane	124		-			70-130	-		
Benzene	95		-			70-130	-		
Carbon tetrachloride	119		-			70-130	-		
Cyclohexane	114		-			70-130	-		
1,2-Dichloropropane	112		-			70-130	-		
Bromodichloromethane	117		-			70-130	-		
1,4-Dioxane	121		-			50-150	-		
Trichloroethene	103					70-130	-		
2,2,4-Trimethylpentane	126		-			70-130	-		
cis-1,3-Dichloropropene	96					70-130	-		
4-Methyl-2-pentanone	126		-			70-130	-		
trans-1,3-Dichloropropene	107		-			70-130	-		
1,1,2-Trichloroethane	113		-			70-130	-		
Toluene	93		-			70-130	-		
2-Hexanone	110		-			70-130	-		
Dibromochloromethane	104		-			70-130	-		
1,2-Dibromoethane	87		-			70-130	-		



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1825822

Report Date: 05/13/19

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM - Mansfie	eld Lab Associa	ited sample(s):	01-07	Batch:	WG1138	152-3			
Tetrachloroethene	91		-			70-130	-		
Chlorobenzene	87		-			70-130	-		
Ethylbenzene	100		-			70-130	-		
p/m-Xylene	100		-			70-130	-		
Bromoform	102		-			70-130	-		
Styrene	89		-			70-130	-		
o-Xylene	101		-			70-130	-		
1,3,5-Trimethybenzene	96		-			70-130	-		
1,2,4-Trimethylbenzene	101		-			70-130	-		
Benzyl chloride	123		-			70-130	-		
1,3-Dichlorobenzene	100		-			70-130	-		
1,4-Dichlorobenzene	99		-			70-130	-		
1,2-Dichlorobenzene	86		-			70-130	-		
1,2,4-Trichlorobenzene	113		-			50-150	-		
Naphthalene	110		-			50-150	-		
Hexachlorobutadiene	114		-			50-150	-		

BAW - WEYMOUTH FORE RIVER L1825822

Project Number: 101869.00 Report Date: 05/13/19

Canister and Flow Controller Information

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check				Flow Out mL/min	Flow In mL/min	% RPD
L1825822-01	Q1 CAN ID 2290	0425	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.1	6
L1825822-01	Q1 CAN ID 2290	2290	6.0L Can	07/05/18	269078	L1825047-01	Pass	-29.7	-6.3	-	-	-	-
L1825822-02	Q1 CAN ID 954	0531	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.4	3
L1825822-02	Q1 CAN ID 954	954	6.0L Can	07/05/18	269078	L1825047-03	Pass	-29.7	-8.9	-	-	-	-
L1825822-03	B1 CAN ID 1638	01067	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.6	9
L1825822-03	B1 CAN ID 1638	1638	6.0L Can	07/05/18	269078	L1825221-01	Pass	-29.7	-3.7	-	-	-	-
L1825822-04	W1 CAN ID 1570	01074	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.4	3
L1825822-04	W1 CAN ID 1570	1570	6.0L Can	07/05/18	269078	L1824952-02	Pass	-29.7	-6.7	-	-	-	-
L1825822-05	H1 CAN ID 2290	0420	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.8	14
L1825822-05	H1 CAN ID 2290	2292	6.0L Can	07/05/18	269078	L1825047-02	Pass	-29.7	-3.4	-	-	-	-
L1825822-06	W2 CAN ID 1645	0365	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.3	0
L1825822-06	W2 CAN ID 1645	1645	6.0L Can	07/05/18	269078	L1824952-01	Pass	-29.7	-6.8	-	-	-	-
L1825822-07	BL CAN ID 2331	8000	Flow 5	07/05/18	269078		-	-	-	Pass	3.3	3.5	6
L1825822-07	BL CAN ID 2331	2331	6.0L Can	07/05/18	269078	L1825221-02	Pass	-29.7	-29.5	-	-	-	-



Project Name:

L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 20:46

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Запре Верш.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



06/29/18 08:30

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1824952

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-01

Date Collected: Client ID: **CAN 1645 SHELF 43** Date Received:

06/29/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	79		60-140



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 20:46

		ppbV			ug/m3			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
Volatile Organics in Air by SIM -	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1824952

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-01

Date Collected: 06/29/18 08:30 Client ID: **CAN 1645 SHELF 43** Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Campic Deptin.								
•		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	78		60-140



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 21:18

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
rans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
ert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1824952

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: **CAN 1570 SHELF 44** Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution Factor Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	80		60-140



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 21:18

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab ND ND ND ND ND ND ND ND ND N	ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.050 ND 0.020 ND 0.020	Results RL MDL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.050 ND 0.500 ND 0.020 ND 0.050 ND 0.020 ND 0.020 ND 0.020	Results RL MDL Results sfield Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 <td>Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND</td> <td>Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<></td>	Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND	Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<>	Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989



L1824952

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Deptil.		nnh\/			ug/m3			
Parameter	Results	ppbV RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - M			IIIDE					
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1824952

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION**

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1824952-02

Date Collected: 06/29/18 08:30 Client ID: CAN 1570 SHELF 44 Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Campic Dopuii.								
		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	79		60-140



Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: **CAN 2290 SHELF 56** Date Received: 06/30/18

Sample Location:

Field Prep:

Lab Number:

Not Specified

L1825047

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 19:08

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: CAN 2290 SHELF 56 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: CAN 2290 SHELF 56 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: CAN 2290 SHELF 56 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825047

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825047-01

Client ID: CAN 2290 SHELF 56

Sample Location:

Date Collected:

06/29/18 16:00

Date Received:

06/30/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: **CAN 2290 SHELF 56** Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 19:08

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab ND ND ND ND ND ND ND ND ND N	ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.050 ND 0.020 ND 0.020	Results RL MDL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.050 ND 0.500 ND 0.020 ND 0.050 ND 0.020 ND 0.020 ND 0.020	Results RL MDL Results sfield Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 <td>Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND</td> <td>Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<></td>	Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND	Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<>	Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: **CAN 2290 SHELF 56** Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

·		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825047

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-01

Date Collected: 06/29/18 16:00 Client ID: CAN 2290 SHELF 56 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Campic Dopin.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 19:41

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Запре Бериі.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

оатре верт.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825047

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: **CAN 2292 SHELF 57** Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution Factor Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	77		60-140



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 19:41

•		ppbV			ug/m3			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

•		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	· Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825047

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-02

Date Collected: 06/29/18 16:00 Client ID: CAN 2292 SHELF 57 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	77		60-140



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: **CAN 954 SHELF 58** Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/30/18 20:13

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: **CAN 954 SHELF 58** Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74		J	1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: **CAN 954 SHELF 58** Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Запре Верш.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: **CAN 954 SHELF 58** Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825047

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: CAN 954 SHELF 58 Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	77		60-140



L1825047

06/29/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825047-03

Client ID: CAN 954 SHELF 58

Sample Location:

Date Received: 06/30/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 48,TO-15-SIM Analytical Date: 06/30/18 20:13

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab ND ND ND ND ND ND ND ND ND N	Results RL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.020 ND 0.050 ND 0.050 ND 0.020 ND 0.020 ND 0.020	Results RL MDL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.050 ND 0.050 ND 0.020 ND 0.0500 ND 0.020 ND 0.020 ND 0.02	Results RL MDL Results sfield Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 <td>Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND</td> <td>Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<></td>	Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND	Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<>	Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: CAN 954 SHELF 58 Date Received: 06/30/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1825047

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825047-03

Date Collected: 06/29/18 16:00 Client ID: **CAN 954 SHELF 58** Date Received: 06/30/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	76		60-140



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: **CAN 1638 SHELF 47** Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/02/18 19:03

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: CAN 1638 SHELF 47 Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74		J	1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: CAN 1638 SHELF 47 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Запре Верш.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: CAN 1638 SHELF 47 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825221

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: **CAN 1638 SHELF 47** Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	85		60-140



L1825221

07/02/18 10:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825221-01

Client ID: CAN 1638 SHELF 47

Sample Location:

Date Received: 07/02/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 48,TO-15-SIM Analytical Date: 07/02/18 19:03

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-01

Date Collected: 07/02/18 10:00 Client ID: CAN 1638 SHELF 47 Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Заттріе Беріті.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825221

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-01

Client ID: CAN 1638 SHELF 47

Sample Location:

Date Collected:

07/02/18 10:00

Date Received: 07/02/18 Field Prep:

Not Specified

Parameter		ppbV			ug/m3			Dilution
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	86		60-140



L1825221

Project Name: BATCH CANISTER CERTIFICATION Lab Number:

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: **CAN 2331 SHELF 48** Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/02/18 19:36

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Запре Бериі.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825221

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825221-02

Client ID: CAN 2331 SHELF 48

Sample Location:

Date Collected:

07/02/18 10:00

Date Received:

07/02/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	84		60-140



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: **CAN 2331 SHELF 48** Date Received: 07/02/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/02/18 19:36

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825221

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825221

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825221-02

Date Collected: 07/02/18 10:00 Client ID: CAN 2331 SHELF 48 Date Received: 07/02/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL MDL		Results	RL MDL		Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1825822

Project Number: 101869.00 **Report Date:** 05/13/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Cooler Custody Seal

N/A Absent

Container Info	rmation		Initial	Final	Temp		Frozen	
Container ID	Container Type	Cooler	рH	рН	deg C Pres	Seal	Date/Time	Analysis(*)
L1825822-01A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1825822-02A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1825822-03A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1825822-04A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1825822-05A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1825822-06A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)
L1825822-07A	Canister - 6 Liter	N/A	NA		Υ	Absent		MCP-TO15-SIM(30)



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1825822 **Project Number:** 101869.00 **Report Date:** 05/13/19

GLOSSARY

Acronyms

LCSD

LOD

MDI

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated

values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case

estimate of the concentration.

EPA Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes. Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes. - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a

specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats

- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated

values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated

using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the RPD

precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEO - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1825822Project Number:101869.00Report Date:05/13/19

 The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

1

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- The lower value for the two columns has been reported due to obvious interference.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- $\label{eq:main_equation} \textbf{M} \qquad \text{-Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.}$
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- ${f P}$ The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1825822Project Number:101869.00Report Date:05/13/19

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:17873 Revision 12

Published Date: 10/9/2018 4:58:19 PM

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-

Tetramethylbenzene: 4-Ethyltoluene

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE,

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

Serial No:05131916:40 ALPHA Job #: 4825822 AIR ANALYSIS Date Rec'd in Lab: 7/15/18 OF CHAIN OF CUSTODY **Billing Information** Report Information - Data Deliverables **Project Information** 320 Forbes Blvd, Mansfield, MA 02048 Fare River ☐ Same as Client info PO# Project Name: TEL: 508-822-9300 FAX: 508-822-3288 ☐ FAX ☐ ADEx Client Information Project Location: Criteria Checker: (Default based on Regulatory Criteria Indicated) Client: Project #: Other Formats: Deci munt Sha Project Manager Regulatory Requirements/Report Limits Address □ EMAIL (standard pdf report) ☐ Additional Deliverables: Program Res / Comm State/Fed ALPHA Quote #: Report to: (if different than Project Manager) **Turn-Around Time** Phone Fax: Standard RUSH (only confirmed if pre-approved!) ANALYSIS Date Due: Time: These samples have been previously analyzed by Alpha Other Project Specific Requirements/Comments: Project-Specific Target Compound List: Fixed Gases TO.15 SIM All Columns Below Must Be Filled Out 70.15 ALPHA Lab ID COLLECTION ID-Flow Sample Sampler's ID End Date Start Time End Time Vacuum Vacuum Sample ID Sample Comments (i.e. PID) (Lab Use Only) Matrix* Initials Size Can Controller 5822-01 -02 -03 -04 66 2290 -6 06 -0 AA = Ambient Air (Indoor/Outdoor) Please print clearly, legibly and *SAMPLE MATRIX CODES SV = Soil Vapor/Landfill Gas/SVE Container Type completely. Samples can not be Other = Please Specify logged in and turnaround time clock will not start until any ambi-Date/Time: Received By: guities are resolved. All samples 7/9/18 1305 submitted are subject to Alpha's Terms and Conditions. Type one Gag. AAL See reverse side. 110118 20:01 Page 103 of 104

			Fore River Study F	Field Form 6/2018			(5)
	11/2						
stall Date:	7/7/19						
	78118					· ·	
ollect Date:	10110			/ -			
te ID	Canister Id	Regulator ID	Start Time (DST)	Start Vacuum	Collegt Time (DST)	End Vacuum	Comments/Observations
1001	2290	Regulator ID	11298	Start Vacuum	1105 15	-642	Comments/Observations
Q1	954	531		-3960	111111	8.90	11 11 01
BEINRI	1438	1667	1210ds)	-30,2	11.48dn	-2.81	Red construction - 8:50 Aulifizar odes classed
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						Sitelds	H1= MWRA Pumping Station, Hingham
							W1 = Weymouth Power Plant
							W2 = Embridge Site
							B1 = BELD Property
2							Q1 = Clement O'Brien Tower



ANALYTICAL REPORT

Lab Number: L1827087

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 05/13/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1827087 **Report Date:** 05/13/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1827087-01	Q1-713-01	AIR	WEYMOUTH QUINCY	07/14/18 10:49	07/16/18
L1827087-02	Q1-713-02	AIR	WEYMOUTH QUINCY	07/14/18 10:51	07/16/18
L1827087-03	B1-713	AIR	WEYMOUTH QUINCY	07/14/18 11:23	07/16/18
L1827087-04	W1-713	AIR	WEYMOUTH QUINCY	07/14/18 11:43	07/16/18
L1827087-05	H1-713	AIR	WEYMOUTH QUINCY	07/14/18 12:05	07/16/18
L1827087-06	W2-713	AIR	WEYMOUTH QUINCY	07/14/18 12:38	07/16/18
L1827087-07	BLANK-713	AIR	WEYMOUTH QUINCY	07/14/18 00:00	07/16/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087

Project Number: 101869.00 **Report Date:** 05/13/19

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status						
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO				
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES				
ı	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES				

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087
Project Number: 101869.00 Report Date: 05/13/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.	



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087
Project Number: 101869.00 Report Date: 05/13/19

Case Narrative (continued)

Report Revision

May 13, 2019: This report replaces the one previously issued on July 30, 2018. The report has been amended to report additional compounds at the request of the client.

MCP Related Narratives

Canisters were released from the laboratory on July 12, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

Volatile Organics in Air

The WG1138152-3 LCS recovery for propylene (137%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative Date: 05/13/19

QC OUTLIER SUMMARY REPORT

Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number:

L1827087

Project Number: 101869.00

Report Date:

05/13/19

					Recovery/RPI	D QC Limits	Associated	I Data Quality
Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	(%)	(%)	Samples	Assessment
MCP Volatil	e Organics in Air by SIM - Mansfield	Lab						
TO-15-SIM	Batch QC	WG1138152-3	Propylene	LCS	137	70-130	01-07	potential high bias



AIR



Project Number: 101869.00

Lab Number:

L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-01 Client ID: Q1-713-01

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 10:49 Date Received: 07/16/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 17:38

Analyst: MB

	ppbV			ug/m3			_	Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.439	0.200		2.17	0.989			1
Chloromethane	0.388	0.200		0.801	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.73	1.00		6.49	2.38			1
Trichlorofluoromethane	0.217	0.050		1.22	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.057	0.050		0.437	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-01 Client ID: Q1-713-01

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 10:49

Date Received: 07/16/18
Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.034	0.020		0.166	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.084	0.020		0.528	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Foluene	0.103	0.050		0.388	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Fetrachloroethene	ND	0.020		ND	0.136			1
,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-01 Client ID: Q1-713-01

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 10:49

Date Received: 07/16/18
Field Prep: Not Specified

острю ворит.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	0.051	0.040		0.222	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	35.6	NJ	ppbV		1
Silanol, Trimethyl-	2.53	NJ	ppbV		1
Unknown	1.81	J	ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.83	NJ	ppbV		1



Project Number: 101869.00 Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID:

L1827087-01

Client ID:

Q1-713-01

Sample Location:

WEYMOUTH QUINCY

Date Collected:

07/14/18 10:49

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter

ppbV RL Results

Results

ug/m3 RL Qualifier MDL

Dilution **Factor**

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

MDL

Units

RDL

Dilution **Factor**

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	103		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	103		60-140



Project Number: 101869.00

Lab Number: L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-02 Client ID: Q1-713-02

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 10:51
Date Received: 07/16/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 18:17

Analyst: MB

ppbV			ug/m3			_	Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
l - Mansfield	Lab						
ND	0.500		ND	0.861			1
0.419	0.200		2.07	0.989			1
0.373	0.200		0.770	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	5.00		ND	9.42			1
ND	0.200		ND	0.874			1
2.57	1.00		6.10	2.38			1
0.206	0.050		1.16	0.281			1
ND	0.500		ND	1.23			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.200		ND	0.626			1
ND	0.200		ND	0.623			1
0.058	0.050		0.445	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.200		ND	0.704			1
ND	0.500		ND	1.47			1
	ND 0.419 0.373 ND	Results RL I - Mansfield Lab ND 0.500 0.419 0.200 0.373 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.100 ND 5.00 ND 0.200 2.57 1.00 0.206 0.050 ND 0.500 ND 0.500 ND 0.500 ND 0.200 ND 0.200 ND 0.020 ND 0.200 ND 0.200 ND 0.200 ND 0.200 ND 0.200	Results RL MDL I - Mansfield Lab ND 0.500 0.419 0.200 ND 0.050 ND 0.050 ND 0.020 ND 0.020 ND 0.100 ND 5.00 ND 0.200 ND 0.200 ND 0.500 ND 0.500 ND 0.500 ND 0.500 ND 0.200 ND 0.200 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.200 ND 0.200 ND 0.200	Results RL MDL Results I - Mansfield Lab ND 0.500 ND 0.419 0.200 2.07 0.373 0.200 0.770 ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.100 ND ND 0.100 ND ND 0.200 ND ND 0.200 ND ND 0.500 ND ND 0.500 ND ND 0.500 ND ND 0.500 ND ND 0.200 ND ND 0.200 ND ND 0.058 0.050 ND ND	Results RL MDL Results RL I - Mansfield Lab ND 0.500 ND 0.861 0.419 0.200 2.07 0.989 0.373 0.200 0.770 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.078 ND 0.100 ND 0.264 ND 0.200 ND 0.874 2.57 1.00 ND 0.874 2.57 1.00 ND 1.23 ND 0.500 ND 0.079 ND 0.500 ND 0.626	Results RL MDL Results RL MDL I - Mansfield Lab ND 0.500 ND 0.861 0.419 0.200 2.07 0.989 0.373 0.200 0.770 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.100 ND 0.264 ND 0.100 ND 0.874 ND 0.200 ND 0.874 ND 0.500 ND 0.874 ND 0.500 ND </td <td>Results RL MDL Results RL MDL Qualifier I - Mansfield Lab ND 0.500 ND 0.861 0.419 0.200 2.07 0.989 0.373 0.200 0.770 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.020 ND 0.078 ND 0.020 ND 0.078 ND 0.100 ND 0.078 ND 0.200 ND 0.874 <</td>	Results RL MDL Results RL MDL Qualifier I - Mansfield Lab ND 0.500 ND 0.861 0.419 0.200 2.07 0.989 0.373 0.200 0.770 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.020 ND 0.078 ND 0.020 ND 0.078 ND 0.100 ND 0.078 ND 0.200 ND 0.874 <



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-02 Client ID: Q1-713-02

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 10:51

Date Received: 07/16/18
Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.031	0.020		0.151	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.083	0.020		0.522	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Foluene	0.107	0.050		0.403	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-02 Client ID: Q1-713-02

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/

07/14/18 10:51

Date Received: Field Prep:

07/16/18 Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	0.044	0.040		0.191	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.020	0.020		0.087	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	35.2	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	93		60-140



Project Number: 101869.00

Lab Number: L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-03

Client ID: B1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 11:23
Date Received: 07/16/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 18:57

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.450	0.200		2.23	0.989			1
Chloromethane	0.407	0.200		0.840	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.78	1.00		6.60	2.38			1
Trichlorofluoromethane	0.227	0.050		1.28	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.051	0.050		0.391	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-03

Client ID: B1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 11:23

Date Received: 07/16/18
Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	l Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.048	0.020		0.234	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.083	0.020		0.522	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.115	0.050		0.433	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-03

Client ID: B1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07

07/14/18 11:23

Date Received: Field Prep:

07/16/18 Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.020	0.020		0.087	0.087			1
p/m-Xylene	0.054	0.040		0.235	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.020	0.020		0.087	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	2.53	J	ppbV		1
Methyl Alcohol	41.2	NJ	ppbV		1
Silanol, Trimethyl-	4.58	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	3.61	NJ	ppbV		1



Project Number: 101869.00 Lab Number:

L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-03

Client ID: B1-713

Sample Location: WEYMOUTH QUINCY Date Collected:

07/14/18 11:23

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results ppbV RL

ug/m3

RL

Qualifier MDL

Dilution **Factor**

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

MDL

Units

Results

RDL

Dilution **Factor**

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	95		60-140



Project Number: 101869.00

Lab Number: L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-04 Client ID: W1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 11:43 Date Received: 07/16/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 19:36

Analyst: MB

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.442	0.200		2.19	0.989			1
Chloromethane	0.382	0.200		0.789	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.69	1.00		6.39	2.38			1
Trichlorofluoromethane	0.217	0.050		1.22	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.055	0.050		0.422	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-04

Client ID: W1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07

07/14/18 11:43

Date Received: Field Prep:

07/16/18 Not Specified

Qualifier	Factor
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1
	1



Project Number: 101869.00

Lab Number:

L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-04

Client ID: W1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 11:43

Date Received: 07/16/18
Field Prep: Not Specified

Campie Deptii.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.024	0.020		0.104	0.087			1
p/m-Xylene	0.068	0.040		0.295	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	0.027	0.020		0.115	0.085			1
o-Xylene	0.030	0.020		0.130	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.040	0.020		0.197	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	0.295	0.050		1.55	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	38.2	NJ	ppbV		1
Methyl Alcohol	47.2	NJ	ppbV		1
D-Limonene	5.70	NJ	ppbV		1
Silanol, Trimethyl-	2.25	NJ	ppbV		1
Unknown	2.89	J	ppbV		1
Unknown	9.50	J	ppbV		1
Hexanal	1.09	NJ	ppbV		1



Project Number: 101869.00 Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID:

L1827087-04

Client ID:

W1-713

Sample Location:

WEYMOUTH QUINCY

Date Collected:

07/14/18 11:43

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results ppbV RL

ug/m3 RL

Results

Qualifier MDL

Dilution **Factor**

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Qualifier

MDL

Units

RDL

Dilution **Factor**

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	110		60-140
bromochloromethane	105		60-140
chlorobenzene-d5	108		60-140



Project Number: 101869.00

Lab Number: L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-05

Client ID: H1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 12:05
Date Received: 07/16/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 20:55

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air I	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.458	0.200		2.26	0.989			1
Chloromethane	0.435	0.200		0.898	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.64	1.00		6.27	2.38			1
Trichlorofluoromethane	0.216	0.050		1.21	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.063	0.050		0.483	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-05

Client ID: H1-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07

07/14/18 12:05

Date Received: Field Prep:

07/16/18 Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.036	0.020		0.176	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.078	0.020		0.491	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.117	0.050		0.441	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-05

Client ID: H1-713

Sample Location: WEYMOUTH QUINCY

Date Collected:

07/14/18 12:05

Date Received: Field Prep:

07/16/18 Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	l Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	0.058	0.040		0.252	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.021	0.020		0.091	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
1,3-Pentadiene, (Z)-	1.13	NJ	ppbV		1
Methyl Alcohol	45.9	NJ	ppbV		1



Project Number: 101869.00 Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-05

Client ID: H1-713

Sample Location: WEYMOUTH QUINCY Date Collected:

07/14/18 12:05

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results

ug/m3 ppbV

Results

RL Qualifier MDL

Dilution **Factor**

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

RL

Qualifier

MDL

Units

RDL

Dilution **Factor**

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	115		60-140
bromochloromethane	111		60-140
chlorobenzene-d5	111		60-140



Project Number: 101869.00

Lab Number: L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-06

Client ID: W2-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07/14/18 12:38 Date Received: 07/16/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 21:35

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.451	0.200		2.23	0.989			1
Chloromethane	0.413	0.200		0.853	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.85	1.00		6.77	2.38			1
Trichlorofluoromethane	0.218	0.050		1.23	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.063	0.050		0.483	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00 Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-06

Client ID: W2-713

Sample Location: WEYMOUTH QUINCY Date Collected:

07/14/18 12:38

Date Received: Field Prep:

07/16/18 Not Specified

Sample Depth:

ppbV ug/m3 **Dilution Factor** RL Qualifier Results MDL **Parameter** Results RL MDL MCP Volatile Organics in Air by SIM - Mansfield Lab cis-1,2-Dichloroethene ND 0.020 ND 0.079 1 Ethyl Acetate ND 0.500 ND 1.80 --1 --Chloroform 0.031 0.020 0.151 0.098 1 Tetrahydrofuran ND 0.200 ND 0.590 ----1 1,2-Dichloroethane ND 1 0.020 ND 0.081 n-Hexane ND 0.200 0.705 ND 1 ----1,1,1-Trichloroethane ND 0.020 ND 0.109 ----1 Benzene ND 0.100 ND 0.319 1 Carbon tetrachloride 0.070 0.020 0.440 0.126 1 ----Cyclohexane ND 0.200 ND 0.688 1 ----1,2-Dichloropropane ND 0.020 ND 0.092 1 Bromodichloromethane 0.020 ND --ND 0.134 --1 1,4-Dioxane ND 0.100 ND 0.360 1 Trichloroethene ND 0.020 ND 0.107 1 2,2,4-Trimethylpentane ND 0.200 ND 0.934 --1 --Heptane ND 0.200 ND 0.820 1 cis-1,3-Dichloropropene 0.020 ND --ND 0.091 --1 4-Methyl-2-pentanone ND 0.500 ND 2.05 1 trans-1,3-Dichloropropene ND 0.020 --ND 0.091 --1 1,1,2-Trichloroethane ND 0.020 ND 0.109 1 ----Toluene 0.115 0.050 0.433 0.188 1 2-Hexanone ND 0.200 --ND 0.820 --1 Dibromochloromethane ND 0.020 __ ND 0.170 --1 1,2-Dibromoethane ND 0.020 ND 0.154 1 Tetrachloroethene ND 0.020 ND 0.136 1 ----1,1,1,2-Tetrachloroethane ND 0.020 ND 0.137 1



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-06

Client ID: W2-713

Sample Location: WEYMOUTH QUINCY

Date Collected: 07

07/14/18 12:38

Date Received: Field Prep:

07/16/18 Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	0.047	0.040		0.204	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.020	0.020		0.087	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1
Hexachlorobutadiene	ND	0.050		ND	0.533			

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	1.88	NJ	ppbV		1
Unknown	1.04	J	ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.23	NJ	ppbV		1
Methyl Alcohol	37.4	NJ	ppbV		1



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-06

Client ID: W2-713

Sample Location: WEYMOUTH QUINCY

Date Collected:

07/14/18 12:38

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter

ppbV

ug/m3

Results

MDL Qualifier

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Results

Results

RL

Qualifier

MDL

Units

RDL

RL

Dilution Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	126		60-140
bromochloromethane	120		60-140
chlorobenzene-d5	118		60-140



Project Number: 101869.00

Lab Number: L1827087

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1827087-07

Client ID: BLANK-713

Sample Location: WEYMOUTH QUINCY

Date Received: 07/16/18
Field Prep: Not Specified

Date Collected:

07/14/18 00:00 07/16/18

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 16:59

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00 Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-07 Client ID: BLANK-713

Sample Location:

WEYMOUTH QUINCY

Date Collected: 07/14/18 00:00

Date Received: 07/16/18 Field Prep: Not Specified

оапріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1827087

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1827087-07 Client ID: BLANK-713

Sample Location: WEYMOUTH QUINCY

Date Collected:

07/14/18 00:00

Date Received: Field Prep:

07/16/18 Not Specified

Sample Depth:

Campio Dopani	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor	
Tentatively Identified Compounds						

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	103		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 15:00

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batch	n: WG1	138152-	-4	
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 15:00

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM -	- Mansfield	Lab for sa	ample(s):	01-07 Bat	ch: WG1	138152-	-4	
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1827087

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 07/21/18 15:00

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Bato	h: WG1	138152-	4	
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00 Lab Number:

L1827087

Report Date: 05/13/19

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM - Mansf	field Lab Associ	ated sample(s):	01-07	Batch:	WG1138	152-3			
Propylene	137	Q	-			70-130	-		
Dichlorodifluoromethane	105		-			70-130	-		
Chloromethane	89		-			70-130	-		
Freon-114	88		-			70-130	-		
Vinyl chloride	98		-			70-130	-		
1,3-Butadiene	89		-			70-130	-		
Bromomethane	90		-			70-130	-		
Chloroethane	93		-			70-130	-		
Ethanol	103		-			70-130	-		
Vinyl bromide	83		-			70-130	-		
Acetone	98		-			50-150	-		
Trichlorofluoromethane	108		-			70-130	-		
Isopropanol	85		-			70-130	-		
1,1-Dichloroethene	101		-			70-130	-		
Methylene chloride	87		-			70-130	-		
3-Chloropropene	119		-			70-130	-		
Carbon disulfide	78		-			70-130	-		
Freon-113	86		-			70-130	-		
trans-1,2-Dichloroethene	114		-			70-130	-		
1,1-Dichloroethane	115		-			70-130	-		
Methyl tert butyl ether	102		-			70-130	-		
Vinyl acetate	119		-			70-130	-		
2-Butanone	114		-			70-130	-		



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1827087

Report Date: 05/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM	- Mansfield Lab Associa	ated sample(s):	01-07 Bate	ch: WG11381	52-3			
cis-1,2-Dichloroethene	118		-		70-130	-		
Ethyl Acetate	118		-		70-130	-		
Chloroform	116		-		70-130	-		
Tetrahydrofuran	115		-		70-130	-		
1,2-Dichloroethane	128		-		70-130	-		
n-Hexane	117		-		70-130	-		
1,1,1-Trichloroethane	124		-		70-130	-		
Benzene	95		-		70-130	-		
Carbon tetrachloride	119		-		70-130	-		
Cyclohexane	114		-		70-130	-		
1,2-Dichloropropane	112		-		70-130	-		
Bromodichloromethane	117		-		70-130	-		
1,4-Dioxane	121		-		50-150	-		
Trichloroethene	103		-		70-130	-		
2,2,4-Trimethylpentane	126		-		70-130	-		
cis-1,3-Dichloropropene	96		-		70-130	-		
4-Methyl-2-pentanone	126		-		70-130	-		
trans-1,3-Dichloropropene	107		-		70-130	-		
1,1,2-Trichloroethane	113		-		70-130	-		
Toluene	93		-		70-130	-		
2-Hexanone	110		-		70-130	-		
Dibromochloromethane	104		-		70-130	-		
1,2-Dibromoethane	87		-		70-130	-		



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1827087

Report Date: 05/13/19

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mans	field Lab Associa	ted sample(s):	01-07	Batch:	WG11381	52-3			
Tetrachloroethene	91		-			70-130	-		
Chlorobenzene	87		-			70-130	-		
Ethylbenzene	100		-			70-130	-		
p/m-Xylene	100		-			70-130	-		
Bromoform	102		-			70-130	-		
Styrene	89		-			70-130	-		
o-Xylene	101		-			70-130	-		
1,3,5-Trimethybenzene	96		-			70-130	-		
1,2,4-Trimethylbenzene	101		-			70-130	-		
Benzyl chloride	123		-			70-130	-		
1,3-Dichlorobenzene	100		-			70-130	-		
1,4-Dichlorobenzene	99		-			70-130	-		
1,2-Dichlorobenzene	86		-			70-130	-		
1,2,4-Trichlorobenzene	113		-			50-150	-		
Naphthalene	110		-			50-150	-		
Hexachlorobutadiene	114		-			50-150	-		

Lab Duplicate Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1827087

Report Date: 05/13/19

arameter	Native Sample	Duplicate Sample	Units	RPD		RPD imits	
ICP Volatile Organics in Air by SIM - Mansfield Lab 13	•		WG1138152-5		L1827087-0		W1-
Propylene	ND	ND	ppbV	NC		25	
Dichlorodifluoromethane	0.442	0.433	ppbV	2		25	
Chloromethane	0.382	0.410	ppbV	7		25	
Freon-114	ND	ND	ppbV	NC		25	
Vinyl chloride	ND	ND	ppbV	NC		25	
1,3-Butadiene	ND	ND	ppbV	NC		25	
Bromomethane	ND	ND	ppbV	NC		25	
Chloroethane	ND	ND	ppbV	NC		25	
Ethanol	ND	ND	ppbV	NC		25	
Vinyl bromide	ND	ND	ppbV	NC		25	
Acetone	2.69	2.70	ppbV	0		25	
Trichlorofluoromethane	0.217	0.203	ppbV	7		25	
Isopropanol	ND	ND	ppbV	NC		25	
1,1-Dichloroethene	ND	ND	ppbV	NC		25	
Methylene chloride	ND	ND	ppbV	NC		25	
3-Chloropropene	ND	ND	ppbV	NC		25	
Carbon disulfide	ND	ND	ppbV	NC		25	
Freon-113	0.055	0.058	ppbV	5		25	
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25	
1,1-Dichloroethane	ND	ND	ppbV	NC		25	
Methyl tert butyl ether	ND	ND	ppbV	NC		25	



Lab Duplicate Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1827087

Report Date: 05/13/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
Parameter	•	-			•
MCP Volatile Organics in Air by SIM - Mansfield Lat 713	o Associated sample(s):	01-07 QC Batch ID:	WG1138152-5	QC Sample:	: L1827087-04 Client ID: W1-
Vinyl acetate	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	0.037	0.036	ppbV	3	25
Tetrahydrofuran	0.243	0.241	ppbV	1	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	0.348	0.352	ppbV	1	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.081	0.074	ppbV	9	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25



Lab Duplicate Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1827087

Report Date: 05/13/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab 713	Associated sample(s):	01-07 QC Batch ID:	WG1138152-5	QC Sample:	L1827087-04 Client ID: W1-
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.148	0.153	ppbV	3	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.024	0.022	ppbV	9	25
p/m-Xylene	0.068	0.073	ppbV	7	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	0.027	0.029	ppbV	7	25
o-Xylene	0.030	0.029	ppbV	3	25
1,3,5-Trimethybenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	0.040	0.042	ppbV	5	25
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Naphthalene	0.295	0.309	ppbV	5	25



L1827087

Lab Number:

Lab Duplicate Analysis
Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER Batch Quality Control

Project Number: 101869.00 **Report Date:** 05/13/19

RPD Parameter Native Sample Duplicate Sample Units **RPD** Qual Limits MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1138152-5 QC Sample: L1827087-04 Client ID: W1-713 ND ND ppbV NC 25 Hexachlorobutadiene



BAW - WEYMOUTH FORE RIVER L1827087

Project Number: 101869.00 Report Date: 05/13/19

Canister and Flow Controller Information

			Media Type	Date	Bottle	Cleaning	Can Leak	Initial Pressure	Pressure on Receipt	Flow Controler	Flow Out	Elow In	
Samplenum	Client ID	Media ID	Media Type	Prepared	Order	Batch ID	Check	(in. Hg)	(in. Hg)	Leak Chk	mL/min	Flow In mL/min	% RPD
L1827087-01	Q1-713-01	01023	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.4	3
L1827087-01	Q1-713-01	1715	6.0L Can	07/12/18	269082	L1825595-01	Pass	-29.6	-7.5	-	-	-	-
L1827087-02	Q1-713-02	0560	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.3	0
L1827087-02	Q1-713-02	2487	6.0L Can	07/12/18	269082	L1825595-02	Pass	-29.6	-5.7	-	-	-	-
L1827087-03	B1-713	0824	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.0	10
L1827087-03	B1-713	2323	6.0L Can	07/12/18	269082	L1825595-03	Pass	-29.6	-14.6	-	-	-	-
L1827087-04	W1-713	0226	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.3	0
L1827087-04	W1-713	1539	6.0L Can	07/12/18	269082	L1825649-01	Pass	-29.7	-9.0	-	-	-	-
L1827087-05	H1-713	0064	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	2.9	13
L1827087-05	H1-713	611	6.0L Can	07/12/18	269082	L1825504-01	Pass	-29.7	-10.2	-	-	-	-
L1827087-06	W2-713	0836	Flow 5	07/12/18	269082		-	-	-	Pass	3.3	3.5	6
L1827087-06	W2-713	1548	6.0L Can	07/12/18	269082	L1825420-02	Pass	-29.8	-10.0	-	-	-	-
L1827087-07	BLANK-713	0315	Flow 5	07/12/18	269082		-	-	-	Pass	3.2	2.7	17
L1827087-07	BLANK-713	609	6.0L Can	07/12/18	269082	L1825420-01	Pass	-29.7	-29.4	-	-	-	-



Project Name:

L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: Date Collected: 07/03/18 16:00

Client ID: CAN 609 SHELF 51 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/05/18 15:26

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825420

07/03/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825420-01

Client ID: CAN 609 SHELF 51

Sample Location:

Date Received: 07/05/18
Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-01

Date Collected: 07/03/18 16:00 Client ID: **CAN 609 SHELF 51** Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

	ppbV		ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825420-01

Client ID: CAN 609 SHELF 51

Sample Location:

Date Collected:

Lab Number:

07/03/18 16:00

Date Received:

07/05/18

L1825420

Field Prep:

Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825420

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825420-01

Client ID: CAN 609 SHELF 51

Sample Location:

Date Collected:

07/03/18 16:00

Date Received:

07/05/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825420-01 Date Collected: 07/03/18 16:00

Client ID: CAN 609 SHELF 51 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 16:34

Analyst: GJ

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab ND ND ND ND ND ND ND ND ND N	ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.050 ND 0.020 ND 0.020	Results RL MDL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.050 ND 0.500 ND 0.020 ND 0.050 ND 0.020 ND 0.020 ND 0.020	Results RL MDL Results sfield Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 <td>Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND</td> <td>Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<></td>	Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND	Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<>	Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-01

Date Collected: 07/03/18 16:00 Client ID: **CAN 609 SHELF 51** Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825420

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825420-01

Client ID: CAN 609 SHELF 51

Sample Location:

Date Collected:

07/03/18 16:00

Date Received:

07/05/18

Field Prep:

Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	95		60-140



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 07/05/18 16:04 Analytical Date:

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825420

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: **CAN 1548 SHELF 52** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	92		60-140



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 18:11

Analyst: GJ

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab ND ND ND ND ND ND ND ND ND N	ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.050 ND 0.020 ND 0.020	Results RL MDL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.050 ND 0.500 ND 0.020 ND 0.050 ND 0.020 ND 0.020 ND 0.020	Results RL MDL Results sfield Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 <td>Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND</td> <td>Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<></td>	Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND	Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<>	Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

	<u> </u>	ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825420

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-02

Date Collected: 07/03/18 16:00 Client ID: CAN 1548 SHELF 52 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Campic Dopin.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	108		60-140
chlorobenzene-d5	100		60-140



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/05/18 17:21

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Затріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825504

07/05/18 09:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825504-01

Client ID: CAN 611 SHELF 54 Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825504

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received:

07/05/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received:

Sample Location:

07/05/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 19:21

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825504

07/05/18 09:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825504-01

Client ID: CAN 611 SHELF 54

Sample Location:

Date Received: 07/05/18
Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-01

Date Collected: 07/05/18 09:00 Client ID: **CAN 611 SHELF 54** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	l - Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	92		60-140



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/06/18 18:02

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74		J	1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825595

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	90		60-140



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/07/18 15:36

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-01

Date Collected: 07/05/18 16:00 Client ID: **CAN 1715 SHELF 43** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Man	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825595-01

Client ID: CAN 1715 SHELF 43

Sample Location:

Date Collected:

Lab Number:

07/05/18 16:00

Date Received:

07/06/18

L1825595

Field Prep:

Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	75		60-140
chlorobenzene-d5	74		60-140



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: **CAN 2487 SHELF 44** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/06/18 19:19

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: **CAN 2487 SHELF 44** Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: CAN 2487 SHELF 44 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Запре Верш.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: CAN 2487 SHELF 44 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Sample Depth.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L1825595

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825595-02

Client ID: CAN 2487 SHELF 44

Sample Location:

Date Collected:

07/05/18 16:00

Date Received:

07/06/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	93		60-140



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: **CAN 2487 SHELF 44** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/07/18 16:11

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	l - Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: CAN 2487 SHELF 44 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-02

Date Collected: 07/05/18 16:00 Client ID: CAN 2487 SHELF 44 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Campic Doptii.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	83		60-140
chlorobenzene-d5	82		60-140



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: **CAN 2323 SHELF 49** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/06/18 19:57

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
,1,2-Trichloroethane	ND	0.200		ND	1.09			1
oluene	ND	0.200		ND	0.754			1
,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

оатре Берт.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	b							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825595

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825595-03

Client ID: CAN 2323 SHELF 49

Sample Location:

Date Collected:

07/05/18 16:00

Date Received:

07/06/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	88		60-140



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: **CAN 2323 SHELF 49** Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM 07/07/18 17:18 Analytical Date:

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab ND ND ND ND ND ND ND ND ND N	ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.050 ND 0.020 ND 0.020	Results RL MDL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.050 ND 0.500 ND 0.020 ND 0.050 ND 0.020 ND 0.020 ND 0.020	Results RL MDL Results sfield Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 <td>Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND</td> <td>Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<></td>	Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND	Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<>	Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989



L1825595

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	PpbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825595

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825595-03

Date Collected: 07/05/18 16:00 Client ID: CAN 2323 SHELF 49 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Campic Deptin.								
• •		ppbV		ug/m3			·	Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140



L1825649

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/06/18 20:35

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825649

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Запре Бериі.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825649

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825649

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825649

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RL MDL RLResults Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	2.9	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	93		60-140



L1825649

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/07/18 17:53

Analyst: MB

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825649

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825649-01

Date Collected: 07/06/18 09:00 Client ID: CAN 1539 SHELF 42 Date Received: 07/06/18

Sample Location: Field Prep: Not Specified

Sample Depth:	пріє Беріїї. ppbV					Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1825649

07/06/18 09:00

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION**

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825649-01

Date Collected: Client ID: CAN 1539 SHELF 42

Sample Location:

Date Received: 07/06/18 Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	ansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	83		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1827087

Project Number: 101869.00 **Report Date:** 05/13/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Cooler Custody Seal

N/A Absent

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L1827087-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1827087-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1827087 **Project Number:** 101869.00 **Report Date:** 05/13/19

GLOSSARY

Acronyms

EDL

LOD

MS

RPD

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case

estimate of the concentration. **EPA** Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content,

where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats

MDI - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

> - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated

using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEO - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound

list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1827087Project Number:101869.00Report Date:05/13/19

 The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

1

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- The lower value for the two columns has been reported due to obvious interference.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- ${f P}$ The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1827087Project Number:101869.00Report Date:05/13/19

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

Serial_No:05131916:52

ID No.:17873 Revision 12

Page 1 of 1

Published Date: 10/9/2018 4:58:19 PM

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene: 4-Ethyltoluene

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

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ANALYTICAL REPORT

Lab Number: L1828358

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 05/10/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1828358 **Report Date:** 05/10/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1828358-01	Q1-071918-1	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 11:19	07/24/18
L1828358-02	Q1-071918-2	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 11:19	07/24/18
L1828358-03	B1-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 11:55	07/24/18
L1828358-04	W1-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 12:14	07/24/18
L1828358-05	H1-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 12:34	07/24/18
L1828358-06	W2-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 12:49	07/24/18
L1828358-07	BLANK-071918	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/20/18 00:00	07/24/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A res	A response to questions G, H and I is required for "Presumptive Certainty" status						
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO					
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES					
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES					

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358
Project Number: 101869.00 Report Date: 05/10/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.	



Serial_No:05101915:49

Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1828358Project Number:101869.00Report Date:05/10/19

Case Narrative (continued)

Report Revision

May 10, 2019: This report replaces the one previously issued on August 7, 2018. The report has been amended to report additional compounds at the request of the client.

MCP Related Narratives

Canisters were released from the laboratory on July 18, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1828358-01, -04 and -05 results for Acetone should be considered estimated due to co-elution with a non-target peak.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative Date: 05/10/19

QC OUTLIER SUMMARY REPORT

Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number:

L1828358

Project Number: 101869.00

S9.00 Report Date:

05/10/19

Recovery/RPD QC Limits Associated Data Quality
Method Client ID (Native ID) Lab ID Parameter QC Type (%) (%) Samples Assessment

There are no QC Outliers associated with this report.



AIR



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-01 Date Collected: 07/20/18 11:19

Client ID: Q1-071918-1 Date Received: 07/24/18 Sample Location: QUINCY, WEYMOUTH , BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 18:01

Analyst: TS

Parameter MCP Volatile Organics in Air by SIN Propylene Dichlorodifluoromethane Chloromethane Freon-114 Vinyl chloride 1,3-Butadiene	Results M - Mansfield ND 0.370 0.458 ND ND ND ND ND	RL 0.500 0.200 0.200 0.050 0.050 0.020	 ND 1.83 0.946 ND	0.861 0.989 0.413 0.349	 Qualifier	1 1 1 1
Propylene Dichlorodifluoromethane Chloromethane Freon-114 Vinyl chloride	ND 0.370 0.458 ND ND	0.500 0.200 0.200 0.050 0.020	 1.83 0.946	0.989 0.413		1
Dichlorodifluoromethane Chloromethane Freon-114 Vinyl chloride	0.370 0.458 ND ND	0.200 0.200 0.050 0.020	 1.83 0.946	0.989 0.413		1
Chloromethane Freon-114 Vinyl chloride	0.458 ND ND	0.200 0.050 0.020	 0.946	0.413		
Freon-114 Vinyl chloride	ND ND ND	0.050 0.020				1
Vinyl chloride	ND ND	0.020	ND	0.349		
•	ND					1
1,3-Butadiene		0.020	ND	0.051		1
	ND	3.320	 ND	0.044		1
Bromomethane		0.020	 ND	0.078		1
Chloroethane	ND	0.100	 ND	0.264		1
Ethanol	ND	5.00	 ND	9.42		1
Vinyl bromide	ND	0.200	 ND	0.874		1
Acetone	2.39	1.00	 5.68	2.38		1
Trichlorofluoromethane	0.171	0.050	 0.961	0.281		1
Isopropanol	ND	0.500	 ND	1.23		1
1,1-Dichloroethene	ND	0.020	 ND	0.079		1
Methylene chloride	ND	0.500	 ND	1.74		1
3-Chloropropene	ND	0.200	 ND	0.626		1
Carbon disulfide	ND	0.200	 ND	0.623		1
Freon-113	0.054	0.050	 0.414	0.383		1
trans-1,2-Dichloroethene	ND	0.020	 ND	0.079		1
1,1-Dichloroethane	ND	0.020	 ND	0.081		1
Methyl tert butyl ether	ND	0.200	 ND	0.721		1
Vinyl acetate	ND	0.200	 ND	0.704		1
2-Butanone	ND	0.500	 ND	1.47		1



Project Number: 101869.00

Lab Number:

L1828358

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1828358-01 Client ID: Q1-071918-1

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 11:19

Date Received: 07/24/18
Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.020	0.020		0.098	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.064	0.020		0.403	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
richloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Foluene	0.128	0.050		0.482	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
Fetrachloroethene	ND	0.020		ND	0.136			1
,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: Lab Number: **BAW - WEYMOUTH FORE RIVER**

Project Number: Report Date: 101869.00 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-01 Date Collected: 07/20/18 11:19 Client ID: Q1-071918-1 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Campio Doptii.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.025	0.020		0.109	0.087			1
p/m-Xylene	0.074	0.040		0.321	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.027	0.020		0.117	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	2.25	NJ	ppbV		1
Methyl Alcohol	5.64	NJ	Vdqq		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/20/18 11:19

Client ID: Q1-071918-1 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	74		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	85		60-140



Project Number: 101869.00

Lab Number: L1828358

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-02

Client ID: Q1-071918-2

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 11:19

Date Received: 07/24/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 19:11

Analyst: TS

Results RL MDL Results RL MDL Education MCP Volatile Organics in Air by SIM - Mansfield Lab ND 0.500 ND 0.861 Dichlorodifluoromethane 0.382 0.200 1.89 0.989 Chloromethane 0.467 0.200 0.964 0.413 Freon-114 ND 0.050 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Ethanol ND 0.200 ND 0.874 Vinyl bromide	Dilution			ug/m3			ppbV		
Propylene ND 0.500 ND 0.861 Dichlorodifluoromethane 0.382 0.200 1.89 0.9899 Chloromethane 0.467 0.200 0.964 0.413 Freon-114 ND 0.050 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.078 Ethanol ND 5.00 ND 0.264 Ethanol ND 0.200 ND 0.874 Ethanol ND 0.200 ND 0.874 Ethanol ND 0.200 ND <th>Factor</th> <th>Qualifier</th> <th>MDL</th> <th>RL</th> <th>Results</th> <th>MDL</th> <th>RL</th> <th>Results</th> <th>Parameter</th>	Factor	Qualifier	MDL	RL	Results	MDL	RL	Results	Parameter
Dichlorodifluoromethane 0.382 0.200 1.89 0.989 Chloromethane 0.467 0.200 0.964 0.413 Freon-114 ND 0.050 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.078 Ethanol ND 5.00 ND 0.264 Ethanol ND 5.00 ND 0.874 Ethanol ND 0.200 ND 0.874 Vinyl bromide ND 0.200 ND 0.874 Vinyl bromide ND 0.200 <							Lab	- Mansfield	MCP Volatile Organics in Air by SIM
Chloromethane 0.467 0.200 0.964 0.413 Freon-114 ND 0.050 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.078 Ethanol ND 5.00 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Ethanol ND 0.200 ND 0.874 Ethanol ND 0.200 ND 0.874 Vinyl bromide ND 0.200 ND <td< td=""><td>1</td><td></td><td></td><td>0.861</td><td>ND</td><td></td><td>0.500</td><td>ND</td><td>Propylene</td></td<>	1			0.861	ND		0.500	ND	Propylene
Freon-114 ND 0.050 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 0.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 4.57 1.00 ND 0.874 Trichloroffluoromethane 0.174 0.050 ND 1.23 Isopropanol ND 0.500 ND 0.079 Methylene chloride ND 0.500 <	1			0.989	1.89		0.200	0.382	Dichlorodifluoromethane
Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 4.57 1.00 10.9 2.38 Trichlorofluoromethane 0.174 0.050 0.978 0.281 Isopropanol ND 0.500 ND 1.23 Methylene chloride ND 0.020 ND 0.079 Methylene chloride ND 0.200 ND 0.626 Carbon disulfide ND 0.200 -	1			0.413	0.964		0.200	0.467	Chloromethane
1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 4.57 1.00 10.9 2.38 Trichlorofluoromethane 0.174 0.050 0.978 0.281 Isopropanol ND 0.500 ND 1.23 Isopropanol ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.052 0.050 ND 0.623 Freon-113 0.052 <td< td=""><td>1</td><td></td><td></td><td>0.349</td><td>ND</td><td></td><td>0.050</td><td>ND</td><td>Freon-114</td></td<>	1			0.349	ND		0.050	ND	Freon-114
Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 4.57 1.00 10.9 2.38 Trichlorofluoromethane 0.174 0.050 ND 0.281 Isopropanol ND 0.500 ND 0.079 Italiance ND 0.500 ND 0.079 Methylene chloride ND 0.200	1			0.051	ND		0.020	ND	Vinyl chloride
Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 4.57 1.00 10.9 2.38 Trichlorofluoromethane 0.174 0.050 0.978 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 ND 0.079 1,1-Dichloroethane ND 0.020	1			0.044	ND		0.020	ND	1,3-Butadiene
Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 4.57 1.00 10.9 2.38 Trichlorofluoromethane 0.174 0.050 0.978 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.0721	1			0.078	ND		0.020	ND	Bromomethane
Vinyl bromide ND 0.200 ND 0.874 Acetone 4.57 1.00 10.9 2.38 Trichlorofluoromethane 0.174 0.050 0.978 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND <td>1</td> <td></td> <td></td> <td>0.264</td> <td>ND</td> <td></td> <td>0.100</td> <td>ND</td> <td>Chloroethane</td>	1			0.264	ND		0.100	ND	Chloroethane
Acetone 4.57 1.00 10.9 2.38 Trichlorofluoromethane 0.174 0.050 0.978 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.721	1			9.42	ND		5.00	ND	Ethanol
Trichlorofluoromethane 0.174 0.050 0.978 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.721	1			0.874	ND		0.200	ND	Vinyl bromide
Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.721	1			2.38	10.9		1.00	4.57	Acetone
1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.721	1			0.281	0.978		0.050	0.174	Trichlorofluoromethane
Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.721	1			1.23	ND		0.500	ND	Isopropanol
3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.721	1			0.079	ND		0.020	ND	1,1-Dichloroethene
Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.721	1			1.74	ND		0.500	ND	Methylene chloride
Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079 1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.721	1			0.626	ND		0.200	ND	3-Chloropropene
trans-1,2-Dichloroethene	1			0.623	ND		0.200	ND	Carbon disulfide
1,1-Dichloroethane ND 0.020 ND 0.081 Methyl tert butyl ether ND 0.200 ND 0.721	1			0.383	0.399		0.050	0.052	Freon-113
Methyl tert butyl ether ND 0.200 ND 0.721	1			0.079	ND		0.020	ND	trans-1,2-Dichloroethene
	1			0.081	ND		0.020	ND	1,1-Dichloroethane
Vinyl acetate 0.200 0.200 1.04 0.704	1			0.721	ND		0.200	ND	Methyl tert butyl ether
0.296 0.200 1.04 0.704	1			0.704	1.04		0.200	0.296	Vinyl acetate
2-Butanone ND 0.500 ND 1.47	1			1.47	ND		0.500	ND	2-Butanone



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00

Lab Number: L1828358

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-02 Client ID: Q1-071918-2

QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 11:19

Date Received: 07/24/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

Campio Dopuii	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.020	0.020		0.098	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
richloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.130	0.050		0.490	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1828358

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-02 Client ID: Q1-071918-2

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20

07/20/18 11:19

Date Received: Field Prep:

07/24/18 Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.024	0.020		0.104	0.087			1
p/m-Xylene	0.068	0.040		0.295	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.027	0.020		0.117	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	4.04	NJ	ppbV		1
Unknown	1.02	J	ppbV		1
Unknown	1.25	J	ppbV		1
Methyl Alcohol	5.27	NJ	ppbV		1
Unknown	1.21	J	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/20/18 11:19

Client ID: Q1-071918-2 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution

Posults Qualifier Units PDI Factor

Results Qualifier Units RDL Facto

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	70		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	79		60-140



Project Number: 101869.00

Lab Number: L1828358

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-03

Client ID: B1-071918

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 11:55 Date Received: 07/24/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 19:46

Analyst: TS

Parameter Results RL MDL Results RL MDL Qualifier MCP Volatile Organics in Air by SIM-Mansfield Lab Propylene ND 0.500 ND 0.861 Propylene ND 0.500 1.83 0.989 Dichlorodifluoromethane 0.466 0.200 ND 0.962 0.413 Chloromethane 0.466 0.200 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Ethanol ND 0.020 ND 0.264 Vinyl bromide ND 0.200 ND 0.874 Ethanol ND 0.20	Dilution			ug/m3			ppbV		
Propylene ND 0.500 ND 0.861 Dichlorodifluoromethane 0.370 0.200 1.83 0.989 Chloromethane 0.466 0.200 0.962 0.413 Freon-114 ND 0.050 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 1,3-Butadiene ND 0.020 ND 0.044 1,3-Butadiene ND 0.020 ND 0.044 1,3-Butadiene ND 0.020 ND 0.078 1,3-Butadiene ND 0.020 ND 0.078 Bromomethane ND 0.020 ND 0.078 Ethanol ND 0.200 <th>Factor</th> <th>Qualifier</th> <th>MDL</th> <th>RL</th> <th>Results</th> <th>MDL</th> <th>RL</th> <th>Results</th> <th>Parameter</th>	Factor	Qualifier	MDL	RL	Results	MDL	RL	Results	Parameter
Dichlorodifluoromethane 0.370 0.200 1.83 0.989 Chloromethane 0.466 0.200 0.962 0.413 Freon-114 ND 0.050 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.078 Ethanol ND 5.00 ND 0.264 Ethanol ND 0.200 ND 0.874 Vinyl bromide ND 0.200 ND 0.874 Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050							Lab	- Mansfield	MCP Volatile Organics in Air by SIM
Chloromethane 0.466 0.200 0.962 0.413 Freon-114 ND 0.050 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 0.264 Ethanol ND 0.200 ND 0.874 Vinyl bromide ND 0.200 ND 0.874 Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050 ND 1.23 Isopropanol ND 0.020	1			0.861	ND		0.500	ND	Propylene
Freon-114 ND 0.050 ND 0.349 Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050 0.989 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.200	1			0.989	1.83		0.200	0.370	Dichlorodifluoromethane
Vinyl chloride ND 0.020 ND 0.051 1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050 0.989 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 0.626 Carbon disulfide ND 0.200 -	1			0.413	0.962		0.200	0.466	Chloromethane
1,3-Butadiene ND 0.020 ND 0.044 Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050 0.989 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 0.626 3-Chloropropene ND 0.200 ND 0.626 Freon-113 0.052 0.050 </td <td>1</td> <td></td> <td></td> <td>0.349</td> <td>ND</td> <td></td> <td>0.050</td> <td>ND</td> <td>Freon-114</td>	1			0.349	ND		0.050	ND	Freon-114
Bromomethane ND 0.020 ND 0.078 Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050 0.989 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Freon-113 0.052 0.050 ND 0.079 trans-1,2-Dichloroethene ND 0.020	1			0.051	ND		0.020	ND	Vinyl chloride
Chloroethane ND 0.100 ND 0.264 Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Vinyl bromide ND 0.200 ND 0.874 Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050 0.989 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.052 0.050 ND 0.399 0.383 Freon-113 0	1			0.044	ND		0.020	ND	1,3-Butadiene
Ethanol ND 5.00 ND 9.42 Vinyl bromide ND 0.200 ND 0.874 Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050 0.989 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			0.078	ND		0.020	ND	Bromomethane
Vinyl bromide ND 0.200 ND 0.874 Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050 0.989 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 ND 0.079 trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			0.264	ND		0.100	ND	Chloroethane
Acetone 2.78 1.00 6.60 2.38 Trichlorofluoromethane 0.176 0.050 0.989 0.281 Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			9.42	ND		5.00	ND	Ethanol
Trichlorofluoromethane	1			0.874	ND		0.200	ND	Vinyl bromide
Isopropanol ND 0.500 ND 1.23 1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			2.38	6.60		1.00	2.78	Acetone
1,1-Dichloroethene ND 0.020 ND 0.079 Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			0.281	0.989		0.050	0.176	Trichlorofluoromethane
Methylene chloride ND 0.500 ND 1.74 3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			1.23	ND		0.500	ND	Isopropanol
3-Chloropropene ND 0.200 ND 0.626 Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			0.079	ND		0.020	ND	1,1-Dichloroethene
Carbon disulfide ND 0.200 ND 0.623 Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			1.74	ND		0.500	ND	Methylene chloride
Freon-113 0.052 0.050 0.399 0.383 trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			0.626	ND		0.200	ND	3-Chloropropene
trans-1,2-Dichloroethene ND 0.020 ND 0.079	1			0.623	ND		0.200	ND	Carbon disulfide
	1			0.383	0.399		0.050	0.052	Freon-113
1,1-Dichloroethane ND 0.020 ND 0.081	1			0.079	ND		0.020	ND	trans-1,2-Dichloroethene
	1			0.081	ND		0.020	ND	1,1-Dichloroethane
Methyl tert butyl ether ND 0.200 ND 0.721	1			0.721	ND		0.200	ND	Methyl tert butyl ether
Vinyl acetate 0.221 0.200 0.778 0.704	1			0.704	0.778		0.200	0.221	Vinyl acetate
2-Butanone ND 0.500 ND 1.47	1			1.47	ND		0.500	ND	2-Butanone



Project Number: 101869.00

Lab Number:

L1828358

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1828358-03 Client ID: B1-071918

Client ID: B1-071918 Sample Location: QUINCY, W

QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 11:55

Date Received: 07/24/18

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.024	0.020		0.117	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	0.301	0.200		1.06	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.068	0.020		0.428	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
richloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Foluene	0.145	0.050		0.546	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
Fetrachloroethene	ND	0.020		ND	0.136			1
,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



07/20/18 11:55

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-03 Date Collected: Client ID: B1-071918 Date Received:

Client ID: B1-071918 Date Received: 07/24/18 Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Campic Deptil.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.026	0.020		0.113	0.087			1
p/m-Xylene	0.075	0.040		0.326	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.030	0.020		0.130	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.024	0.020		0.118	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.26	J	ppbV		1
Methyl Alcohol	7.89	NJ	ppbV		1
Silanol, Trimethyl-	53.8	NJ	ppbV		1
unknown siloxane	5.46	J	ppbV		1
Cyclotrisiloxane, Hexamethyl-	14.7	NJ	ppbV		1
Unknown	7.12	J	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/20/18 11:55

Client ID: B1-071918 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	68		60-140
bromochloromethane	82		60-140
chlorobenzene-d5	77		60-140



Project Number: 101869.00

Lab Number:

L1828358

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-04

Client ID: W1-071918

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected:

07/20/18 12:14

Date Received: Field Prep:

07/24/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 20:21

Analyst: TS

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.374	0.200		1.85	0.989			1
Chloromethane	0.449	0.200		0.927	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.32	1.00		5.51	2.38			1
Trichlorofluoromethane	0.170	0.050		0.955	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.050	0.050		0.383	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.272	0.200		0.958	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1828358

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1828358-04 Client ID: W1-071918

QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 12:14

Date Received: 07/24/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

Campio Bopuii		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.021	0.020		0.103	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	0.217	0.200		0.765	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.219	0.050		0.825	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: Lab Number: **BAW - WEYMOUTH FORE RIVER**

Project Number: Report Date: 101869.00 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-04 Date Collected: 07/20/18 12:14 Client ID: W1-071918

Date Received: 07/24/18 Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Campie Boptii.	<u> </u>	ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	. Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.040	0.020		0.174	0.087			1
p/m-Xylene	0.117	0.040		0.508	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.044	0.020		0.191	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.031	0.020		0.152	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
Methyl Alcohol	17.0	NJ	ppbV		1
Silanol, Trimethyl-	1.66	NJ	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/20/18 12:14

Client ID: W1-071918 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	68		60-140
bromochloromethane	82		60-140
chlorobenzene-d5	77		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/20/18 12:34

Client ID: H1-071918 Date Received: 07/24/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 20:56

Analyst: TS

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.364	0.200		1.80	0.989			1
Chloromethane	0.454	0.200		0.938	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.47	1.00		5.87	2.38			1
Trichlorofluoromethane	0.170	0.050		0.955	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.051	0.050		0.391	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1828358

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1828358-05 Client ID: H1-071918

Client ID: H1-0/1918

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 12:34

Date Received: 07/24/18
Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.020	0.020		0.098	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.065	0.020		0.409	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.124	0.050		0.467	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-05 Date Collected: 07/20/18 12:34 Client ID: H1-071918 Date Received: 07/24/18

Client ID: H1-071918 Date Received: 07/24/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Campio Doptii.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.020	0.020		0.087	0.087			1
p/m-Xylene	0.055	0.040		0.239	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.021	0.020		0.091	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
Methyl Alcohol	6.40	NJ	ppbV		1
Silanol, Trimethyl-	1.24	NJ	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-05 Date Collected: 07/20/18 12:34

Client ID: H1-071918 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution

Posults Qualifier Units PDI Factor

Results Qualifier Units RDL Facto

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	67		60-140
bromochloromethane	81		60-140
chlorobenzene-d5	77		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/20/18 12:49

Client ID: W2-071918 Date Received: 07/24/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specif

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 21:31

Analyst: TS

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.370	0.200		1.83	0.989			1
Chloromethane	0.459	0.200		0.948	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.66	1.00		6.32	2.38			1
Trichlorofluoromethane	0.175	0.050		0.983	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.054	0.050		0.414	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.207	0.200		0.729	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00 Lab Number:

L1828358

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1828358-06 Client ID: W2-071918

QUINCY, WEYMOUTH ,BRAINTREE

Date Collected:

07/20/18 12:49

Date Received: Field Prep:

07/24/18 Not Specified

Sample Location:

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by								
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.020	0.020		0.098	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.066	0.020		0.415	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.131	0.050		0.494	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-06 Client ID: W2-071918

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 12:49

Date Received: 07/24/18
Field Prep: Not Specified

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
IM - Mansfield	Lab						
ND	0.100		ND	0.461			1
0.023	0.020		0.10	0.087			1
0.065	0.040		0.282	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
0.024	0.020		0.104	0.087			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.098			1
ND	0.200		ND	1.04			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND 0.023 0.065 ND ND 0.024 ND	Results RL	Results RL MDL IM - Mansfield Lab ND 0.100 0.023 0.020 0.065 0.040 ND 0.020 ND 0.050 ND 0.050 ND 0.050	Results RL MDL Results IM - Mansfield Lab ND ND 0.023 0.020 0.10 0.065 0.040 0.282 ND 0.020 ND ND 0.020 ND 0.024 0.020 ND ND 0.050 ND	Results RL MDL Results RL IM - Mansfield Lab ND 0.461 0.023 0.020 0.10 0.087 0.065 0.040 0.282 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 0.024 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.050 ND 0.371 ND 0.050 ND 0.262	Results RL MDL Results RL MDL IM - Mansfield Lab ND 0.461 ND 0.100 ND 0.461 0.023 0.020 0.10 0.087 ND 0.065 0.040 0.282 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120	Results RL MDL Results RL MDL Qualifier IM - Mansfield Lab ND 0.100 ND 0.461 0.023 0.020 0.10 0.087 0.065 0.040 0.282 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.024 0.020 ND 0.087 ND 0.020 ND 0.087 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND <

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	7.75	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.69	NJ	ppbV		1
Silanol, Trimethyl-	1.09	NJ	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/20/18 12:49

Client ID: W2-071918 Date Received: 07/24/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	67		60-140
bromochloromethane	79		60-140
chlorobenzene-d5	76		60-140



Project Number: 101869.00

Lab Number: L1828358

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-07

Client ID: BLANK-071918

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 00:00

Date Received: 07/24/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 17:26

Analyst: TS

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
sopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1828358-07

Client ID: BLANK-071918

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/20/18 00:00

Date Received: 07/24/18

Field Prep: Not Specified

		ppbV		ug/m		ug/m3		Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Foluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1828358

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1828358-07 Client ID: BLANK-071918

Sample Location: QUINCY, WEYMOUTH , BRAINTREE

Date Collected: 07

07/20/18 00:00

Date Received: Field Prep:

07/24/18 Not Specified

Sample Depth:

Сатріс Веріп.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	78		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	87		60-140



Serial_No:05101915:49

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 14:41

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SI	M - Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	143362-	4	
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1



Serial_No:05101915:49

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 14:41

		ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
MCP Volatile Organics in Air by SIM	M - Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	143362-	-4		
Chloroform	ND	0.020		ND	0.098			1	
Tetrahydrofuran	ND	0.200		ND	0.590			1	
1,2-Dichloroethane	ND	0.020		ND	0.081			1	
n-Hexane	ND	0.200		ND	0.705			1	
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1	
Benzene	ND	0.100		ND	0.319			1	
Carbon tetrachloride	ND	0.020		ND	0.126			1	
Cyclohexane	ND	0.200		ND	0.688			1	
1,2-Dichloropropane	ND	0.020		ND	0.092			1	
Bromodichloromethane	ND	0.020		ND	0.134			1	
1,4-Dioxane	ND	0.100		ND	0.360			1	
Trichloroethene	ND	0.020		ND	0.107			1	
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1	
Heptane	ND	0.200		ND	0.820			1	
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1	
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1	
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1	
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1	
Toluene	ND	0.050		ND	0.188			1	
2-Hexanone	ND	0.200		ND	0.820			1	
Dibromochloromethane	ND	0.020		ND	0.170			1	
1,2-Dibromoethane	ND	0.020		ND	0.154			1	
Tetrachloroethene	ND	0.020		ND	0.136			1	
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1	
Chlorobenzene	ND	0.100		ND	0.461			1	



Serial_No:05101915:49

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/06/18 14:41

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	/I - Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	143362-	4	
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1828358

Report Date: 05/10/19

Parameter	LCS %Recovery	Qual	LCSI %Recov		Qual	%Recovery Limits	RPD	Qual	RPD Limits	
MCP Volatile Organics in Air by SIM	- Mansfield Lab Associ	ated sample(s):	01-07	Batch:	WG1143	362-3				
Propylene	101		-			70-130	-			
Dichlorodifluoromethane	87		-			70-130	-			
Chloromethane	86		-			70-130	-			
Freon-114	89		-			70-130	-			
Vinyl chloride	87		-			70-130	-			
1,3-Butadiene	92		-			70-130	-			
Bromomethane	90		-			70-130	-			
Chloroethane	83		-			70-130	-			
Ethanol	84		-			70-130	-			
Vinyl bromide	88		-			70-130	-			
Acetone	81		-			50-150	-			
Trichlorofluoromethane	86		-			70-130	-			
Isopropanol	79		-			70-130	-			
1,1-Dichloroethene	93		-			70-130	-			
Methylene chloride	93		-			70-130	-			
3-Chloropropene	104		-			70-130	-			
Carbon disulfide	90		-			70-130	-			
Freon-113	94		-			70-130	-			
trans-1,2-Dichloroethene	93		-			70-130	-			
1,1-Dichloroethane	92		-			70-130	-			
Methyl tert butyl ether	100		-			70-130	-			
Vinyl acetate	104		-			70-130	-			
2-Butanone	94		-			70-130	-			

Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1828358

Report Date:

05/10/19

arameter	LCS %Recovery Qu	LCSD ual %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits
CP Volatile Organics in Air by SIM -	Mansfield Lab Associated s	ample(s): 01-07 Batch:	WG1143362-3			
cis-1,2-Dichloroethene	95	-	70-130	-		
Ethyl Acetate	99	-	70-130	-		
Chloroform	94	-	70-130	-		
Tetrahydrofuran	86	-	70-130	-		
1,2-Dichloroethane	89	-	70-130	-		
n-Hexane	94	-	70-130	-		
1,1,1-Trichloroethane	89	-	70-130	-		
Benzene	89	-	70-130	-		
Carbon tetrachloride	90	-	70-130	-		
Cyclohexane	96	-	70-130	-		
1,2-Dichloropropane	88	-	70-130	-		
Bromodichloromethane	90	-	70-130	-		
1,4-Dioxane	96	-	50-150	-		
Trichloroethene	90	-	70-130	-		
2,2,4-Trimethylpentane	100	-	70-130	-		
cis-1,3-Dichloropropene	98	-	70-130	-		
4-Methyl-2-pentanone	94	-	70-130	-		
trans-1,3-Dichloropropene	84	-	70-130	-		
1,1,2-Trichloroethane	92	-	70-130	-		
Toluene	96	-	70-130	-		
2-Hexanone	97	-	70-130	-		
Dibromochloromethane	103	-	70-130	-		
1,2-Dibromoethane	95	-	70-130	_		



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1828358

Report Date: 05/10/19

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM - Mansfi	eld Lab Associa	ted sample(s):	01-07	Batch:	WG11433	362-3			
Tetrachloroethene	94		-			70-130	-		
Chlorobenzene	97		-			70-130	-		
Ethylbenzene	102		-			70-130	-		
p/m-Xylene	102		-			70-130	-		
Bromoform	102		-			70-130	-		
Styrene	104		-			70-130	-		
o-Xylene	104		-			70-130	-		
1,3,5-Trimethybenzene	105		-			70-130	-		
1,2,4-Trimethylbenzene	111		-			70-130	-		
Benzyl chloride	104		-			70-130	-		
1,3-Dichlorobenzene	102		-			70-130	-		
1,4-Dichlorobenzene	102		-			70-130	-		
1,2-Dichlorobenzene	104		-			70-130	-		
1,2,4-Trichlorobenzene	103		-			50-150	-		
Naphthalene	99		-			50-150	-		
Hexachlorobutadiene	113		-			50-150	-		

Lab Duplicate Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1828358

Report Date: 05/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab 071918-1	Associated sample(s):	01-07 QC Batch ID:	WG1143362-5	QC Sample:	L1828358-01 Client ID: Q1-
Propylene	ND	ND	ppbV	NC	25
Dichlorodifluoromethane	0.370	0.373	ppbV	1	25
Chloromethane	0.458	0.466	ppbV	2	25
Freon-114	ND	ND	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
1,3-Butadiene	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
Ethanol	ND	ND	ppbV	NC	25
Vinyl bromide	ND	ND	ppbV	NC	25
Acetone	2.39	2.66	ppbV	11	25
Trichlorofluoromethane	0.171	0.173	ppbV	1	25
Isopropanol	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
3-Chloropropene	ND	ND	ppbV	NC	25
Carbon disulfide	ND	ND	ppbV	NC	25
Freon-113	0.054	0.053	ppbV	2	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25



Lab Duplicate Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00 Lab Number: L1828358

Report Date: 05/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab 071918-1			WG1143362-5		: L1828358-01 Client ID: Q1-
Vinyl acetate	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	0.020	0.020	ppbV	0	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.064	0.065	ppbV	2	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25



Lab Duplicate Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1828358

Report Date: 05/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab	Associated sample(s):	01-07 QC Batch ID:	WG1143362-5	QC Sample:	L1828358-01 Client ID: Q1-
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.128	0.132	ppbV	3	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.025	0.026	ppbV	4	25
p/m-Xylene	0.074	0.076	ppbV	3	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
o-Xylene	0.027	0.028	ppbV	4	25
1,3,5-Trimethybenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	0.020	ppbV	NC	25
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Naphthalene	ND	ND	ppbV	NC	25



L1828358

Lab Duplicate Analysis
Batch Quality Control

Lab Number: **Project Name:** BAW - WEYMOUTH FORE RIVER

Report Date: 05/10/19 **Project Number:** 101869.00

RPD Parameter Native Sample Duplicate Sample Units RPD Qual Limits MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1143362-5 QC Sample: L1828358-01 Client ID: Q1-071918-1 ND ND ppbV NC 25 Hexachlorobutadiene



BAW - WEYMOUTH FORE RIVER L1828358

Project Number: 101869.00 Report Date: 05/10/19

Canister and Flow Controller Information

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leal Check	Pressure (in. Hg)			Flow Out mL/min	Flow In mL/min	% RPD
L1828358-01	Q1-071918-1	0044	Flow 5	07/18/18	269576		-	-	-	Pass	3.2	3.5	9
L1828358-01	Q1-071918-1	1530	6.0L Can	07/18/18	269576	L1827000-02	Pass	-29.8	-4.5	-	-	-	-
L1828358-02	Q1-071918-2	0413	Flow 5	07/18/18	269576		-	-	-	Pass	3.2	3.6	12
L1828358-02	Q1-071918-2	960	6.0L Can	07/18/18	269576	L1827000-01	Pass	-29.8	-5.2	-	-	-	-
L1828358-03	B1-071918	0551	Flow 5	07/18/18	269576		-	-	-	Pass	3.3	3.6	9
L1828358-03	B1-071918	1830	6.0L Can	07/18/18	269576	L1827000-03	Pass	-29.8	-9.5	-	-	-	-
L1828358-04	W1-071918	0838	Flow 5	07/18/18	269576		-	-	-	Pass	3.3	3.7	11
L1828358-04	W1-071918	2449	6.0L Can	07/18/18	269576	L1824839-03	Pass	-29.4	-4.7	-	-	-	-
L1828358-05	H1-071918	0640	Flow 4	07/18/18	269576		-	-	-	Pass	3.3	3.7	11
L1828358-05	H1-071918	1785	6.0L Can	07/18/18	269576	L1826681-02	Pass	-29.6	-4.6	-	-	-	-
L1828358-06	W2-071918	0427	Flow 5	07/18/18	269576		-	-	-	Pass	3.3	3.7	11
L1828358-06	W2-071918	1612	6.0L Can	07/18/18	269576	L1826681-03	Pass	-29.4	-5.2	-	-	-	-
L1828358-07	BLANK-071918	0200	Flow 5	07/18/18	269576		-	-	-	Pass	3.3	3.7	11
L1828358-07	BLANK-071918	2099	6.0L Can	07/18/18	269576	L1826681-01	Pass	-29.6	-29.2	-	-	-	-



Project Name:

L1824839

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 06/29/18 19:40

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1824839

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location: Field Prep:

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1824839

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1824839

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1824839

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1824839-03

Client ID: CAN 2449 SHELF 48

Date Received: 06/29/18

Date Collected:

Field Prep: Not Specified

06/28/18 16:00

Sample Depth:

Sample Location:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140



L1824839

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** Date Received: 06/29/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 06/29/18 19:40

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1824839

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1824839-03

Date Collected: 06/28/18 16:00 Client ID: **CAN 2449 SHELF 48** 06/29/18 Date Received:

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



06/28/18 16:00

Date Collected:

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1824839

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1824839-03

Client ID: **CAN 2449 SHELF 48** Date Received:

06/29/18 Sample Location: Field Prep: Not Specified

Campic Doptii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: **CAN 2099 SHELF 49** Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/13/18 16:11

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: CAN 2099 SHELF 49 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

		Vdqq			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: CAN 2099 SHELF 49 Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: CAN 2099 SHELF 49 Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Depth.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1826681

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: **CAN 2099 SHELF 49** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: **CAN 2099 SHELF 49** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/13/18 20:28

Analyst: RY

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab ND ND ND ND ND ND ND ND ND N	ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.050 ND 0.020 ND 0.020	Results RL MDL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.050 ND 0.500 ND 0.020 ND 0.050 ND 0.020 ND 0.020 ND 0.020	Results RL MDL Results sfield Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 <td>Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND</td> <td>Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<></td>	Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND	Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<>	Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989



L1826681

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: **CAN 2099 SHELF 49** Date Received: 07/13/18

Sample Location: Field Prep:

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mans	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1826681

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION**

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-01

Date Collected: 07/12/18 16:00 Client ID: CAN 2099 SHELF 49 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mar	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	85		60-140



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/13/18 16:49

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
rans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
/inyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
sis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
etrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
ert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
,1,2-Trichloroethane	ND	0.200		ND	1.09			1
oluene	ND	0.200		ND	0.754			1
,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1826681

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Client ID: CAN 1785 SHELF 50

Sample Location:

Date Collected:

07/12/18 16:00

Date Received:

07/13/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/13/18 19:19

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Acetaldehyde	ND	2.50		ND	4.50			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	2.50		ND	4.71			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Pentane	ND	0.200		ND	0.590			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
tert-Butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	1.00		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Запре Берп.	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Chloroform	ND	0.200		ND	0.977			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
Benzene	ND	0.200		ND	0.639			1
Thiophene	ND	0.200		ND	0.688			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
2-Methylthiophene	ND	0.200		ND	0.803			1
2-Hexanone	ND	0.200		ND	0.820			1
3-Methylthiophene	ND	0.200		ND	0.803			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
2-Ethylthiophene	ND	0.200		ND	0.918			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
Nonane	ND	0.200		ND	1.05			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2,3-Trimethylbenzene	ND	0.200		ND	0.983			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
Indane	ND	0.200		ND	0.967			1
Indene	ND	0.200		ND	0.951			1
Undecane	ND	0.200		ND	1.28			1
1,2,4,5-Tetramethylbenzene	ND	0.500		ND	2.74			1
Dodecane	ND	0.500		ND	3.48			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	d Lab							
Benzothiophene	ND	0.500		ND	2.74			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1
2-Methylnaphthalene	ND	1.00		ND	5.82			1
1-Methylnaphthalene	ND	1.00		ND	5.82			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	92		60-140



L1826681

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep:

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/13/18 19:54

Analyst: RY

		Vddd			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Date Collected: 07/12/18 16:00 Client ID: CAN 1785 SHELF 50 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1826681

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1826681-02

Client ID: CAN 1785 SHELF 50

Sample Location:

Date Collected:

07/12/18 16:00

Date Received:

07/13/18

Field Prep:

Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L

L1826681

Project Number: CANISTER QC BAT

Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1826681-03

Client ID: CAN 1612 SHELF 55

Sample Location:

Date Collected: 07/12/18 16:00

Date Received: 07/13/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/13/18 17:27

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location:

Field Prep: Not Specified

Sample Deptn:	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1826681

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	88		60-140



L1826681

Not Specified

Lab Number:

Field Prep:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location:

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/13/18 21:03

Analyst: RY

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383		J	1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1826681

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: CAN 1612 SHELF 55 Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1826681

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1826681-03

Date Collected: 07/12/18 16:00 Client ID: **CAN 1612 SHELF 55** Date Received: 07/13/18

Sample Location: Field Prep: Not Specified

Campic Dopin.		ppbV		ug/m3			_	Dilution
Parameter	Results	RL	MDL	Results	RL	RL MDL		Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	84		60-140



L1827000

05/10/19

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date:

Air Canister Certification Results

Lab ID: L1827000-01 Date Collected:

07/16/18 08:30 Client ID: CAN 960 SHELF 46 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/16/18 16:51

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827000

07/16/18 08:30

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827000-01

Client ID: CAN 960 SHELF 46 Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74		J	1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-01

Date Collected: 07/16/18 08:30 Client ID: **CAN 960 SHELF 46** Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-01

Date Collected: 07/16/18 08:30 Client ID: **CAN 960 SHELF 46** Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827000

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827000-01

Client ID: CAN 960 SHELF 46

Sample Location:

Date Collected:

07/16/18 08:30

Date Received:

07/16/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.3	J	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	93		60-140



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827000-01 Date Collected: 07/16/18 08:30

Client ID: CAN 960 SHELF 46 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 48,TO-15-SIM Analytical Date: 07/16/18 16:51

Analyst: GJ

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mans	sfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281		J	1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74		J	1
Freon-113	ND	0.050		ND	0.383		J	1
rans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47		J	1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-01

Date Collected: 07/16/18 08:30 Client ID: **CAN 960 SHELF 46** Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827000

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827000-01

Client ID: CAN 960 SHELF 46

Sample Location:

Date Collected:

07/16/18 08:30

Date Received:

07/16/18

Field Prep:

Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	92		60-140



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/16/18 17:23

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
,1,2-Trichloroethane	ND	0.200		ND	1.09			1
oluene	ND	0.200		ND	0.754			1
,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827000

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location:

Field Prep: Sample Depth:

оатріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1827000

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/16/18 17:23

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1827000

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-02

Date Collected: 07/16/18 08:30 Client ID: CAN 1530 SHELF 47 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Campic Deptin.								
•		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/16/18 17:56

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
sopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

оатре Берт.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	b							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827000

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.4	J	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	87		60-140



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/16/18 17:56

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827000

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep:

	ppbV ug/m3							Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1827000

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827000-03

Date Collected: 07/16/18 08:30 Client ID: CAN 1830 SHELF 53 Date Received: 07/16/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	87		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1828358

Project Number: 101869.00 **Report Date:** 05/10/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Cooler Custody Seal

N/A Absent

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рH	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L1828358-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1828358-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1828358-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1828358-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1828358-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1828358-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1828358-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1828358 **Project Number:** 101869.00 **Report Date:** 05/10/19

GLOSSARY

Acronyms

EDL

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content,

where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats

MDI - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any

> - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated

using the native concentration, including estimated values.

adjustments from dilutions, concentrations or moisture content, where applicable.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

MS

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the RPD

precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEO - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound

list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1828358Project Number:101869.00Report Date:05/10/19

 The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- The lower value for the two columns has been reported due to obvious interference.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- $\label{eq:main_equation} \textbf{M} \qquad \text{-Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.}$
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- ${f P}$ The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1828358Project Number:101869.00Report Date:05/10/19

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:17873

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene: 4-Ethyltoluene

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE,

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

ΔLPHA	AIR A	NALYSIS PAGE / OF 1	Date Rec'd in Lab: 7/24/8	ALPHA Job #: U828358
	Mansfield, MA 02048	Project Information	Report Information - Data Deliverables	Billing Information
TEL: 508-822-930	0 FAX: 508-822-3288	Project Name: Fore River Sludy	□ FAX □ ADEx	☐ Same as Client info PO #.
The second second	SS DEP	Project Location: Orncy he ment	Criteria Checker:	
Address: W	11 1	Project #:	(Default based on Regulatory Criteria Indicated) Other Formats:	
	nch st Zumong	ALPHA Quote #:	☐ EMAIL (standard pdf report) ☐ Additional Deliverables:	Regulatory Requirements/Report Lim
Phone: (928)	242-1318 01899	Turn-Around Time	Report to: (if different than Project Manager)	State/Fed Program Res / Com
Fax: 978	- 1 /	Tan Albana Time		
Email: theme	smigratestatemen	Standard RUSH (conty conformed if pre-approved)		A A A A A A A A A A A A A A A A A A A
These samples ha	ave been previously analyzed by Alpha Specific Requirements/Comi	Date Due: Time:		ANALYSIS
Project-Specific	Target Compound List:			So Constant of the Constant of
ALPHA Lab ID	Α	ll Columns Below Must	Be Filled Out	Sample Comments (i.e. Pli
(Lab Use Only)	Sample ID		Sample Sampler's Can ID ID-Flow Matrix* Initials Size Can Controller	Sample Comments (i.e. Pl
358,01	Q1-071918-1	7/2/18 1056/5+ 11:13+-3667-452	AA Mn 62 1536 0087 X	+10TgT1G
02	Q1-6798-2	1/2/18 1059 1175 -3024 -512	AA TO 66 960 0413 X	1 1 1 1 1 1 1
03	B1-071918	7/20/18 1139+ 11595+-3651-888	MA TO 62 18300551 X	D
,04	W1-0719-18	7/26 11 82+ 12195+ 3620- 4.38	AA In 6, 24490858 X	1
105	14,-071918	1/2/18/1235+ 1234/3+-30.18-4.7	AA JA 62 1785-0680 }	
,06	Wy-071918	7544 1247 1249 -3089-456	AA TN 61 1612087 X	14
,07	B/mH 071918	Theffe NA	AA TO 662099 X	
			11. 11. 00-2-11	
	7			
*SAMPLE	MATRIX CODES SV	A = Ambient Air (Indoor/Outdoor) = Soil Vapor/Landfill Gas/SVE her = Please Specify	Container Type	Please print clearly, legibly and completely. Samples can not be
Page 111 of 11	T, 6hm	Relinquished By: 2	Received By: Date 1/24/1	logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



ANALYTICAL REPORT

Lab Number: L1829376

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 05/10/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1829376 **Report Date:** 05/10/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1829376-01	Q1-072518-1	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 11:13	07/30/18
L1829376-02	Q1-072518-2	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 11:14	07/30/18
L1829376-03	B1-072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 11:56	07/30/18
L1829376-04	W1-072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 12:19	07/30/18
L1829376-05	H1-072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 12:36	07/30/18
L1829376-06	W2-072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 12:56	07/30/18
L1829376-07	BLANK 072518	AIR	QUINCY, WEYMOUTH ,BRAINTREE	07/26/18 00:00	07/30/18



Project Number: 101869.00 **Report Date:** 05/10/19

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A res	A response to questions G, H and I is required for "Presumptive Certainty" status							
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO						
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES						
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES						

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376
Project Number: 101869.00 Report Date: 05/10/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.	



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1829376Project Number:101869.00Report Date:05/10/19

Case Narrative (continued)

Report Revision

May 10, 2019: This report replaces the one previously issued on August 15, 2018. The report has been amended to report additional compounds at the request of the client.

MCP Related Narratives

Canisters were released from the laboratory on July 24, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative Date: 05/10/19

Christopher J. Anderson

ANALYTICAL

QC OUTLIER SUMMARY REPORT

Project Name: BAW - WEYMOUTH FORE RIVER

Lab ID

Lab Number:

L1829376

Project Number: 101869.00

Client ID (Native ID)

Method

Report Date:

05/10/19

Recovery/RPD QC Limits Associated Data Quality **Parameter**

QC Type (%) (%) **Samples** Assessment

There are no QC Outliers associated with this report.



AIR



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 11:13

Client ID: Q1-072518-1 Date Received: 07/30/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 18:01

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	Л - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.389	0.200		1.92	0.989			1
Chloromethane	0.480	0.200		0.991	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	1.87	1.00		4.44	2.38			1
Trichlorofluoromethane	0.171	0.050		0.961	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.053	0.050		0.406	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-01

Client ID: Q1-072518-1

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 11:13

Date Received: 07/30/18

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	l Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.070	0.020		0.440	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.058	0.050		0.219	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1829376-01 Date Collected: 07/26/18 11:13 Client ID: Q1-072518-1 Date Received: 07/30/18

Client ID: Q1-072518-1 Date Received: 07/30/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

острю ворит.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	6.49	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.00	NJ	ppbV		1
Methyl Alcohol	14.2	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 11:13

Client ID: Q1-072518-1 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140



Lab Number: Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 05/10/19

SAMPLE RESULTS

Lab ID: L1829376-02 Date Collected: 07/26/18 11:14

Client ID: Q1-072518-2 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH , BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 18:36

Analyst: MB

		ppbV			ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab							
Propylene	ND	0.500		ND	0.861			1	
Dichlorodifluoromethane	0.390	0.200		1.93	0.989			1	
Chloromethane	0.483	0.200		0.997	0.413			1	
Freon-114	ND	0.050		ND	0.349			1	
Vinyl chloride	ND	0.020		ND	0.051			1	
1,3-Butadiene	ND	0.020		ND	0.044			1	
Bromomethane	ND	0.020		ND	0.078			1	
Chloroethane	ND	0.100		ND	0.264			1	
Ethanol	ND	5.00		ND	9.42			1	
Vinyl bromide	ND	0.200		ND	0.874			1	
Acetone	2.16	1.00		5.13	2.38			1	
Trichlorofluoromethane	0.171	0.050		0.961	0.281			1	
Isopropanol	ND	0.500		ND	1.23			1	
1,1-Dichloroethene	ND	0.020		ND	0.079			1	
Methylene chloride	ND	0.500		ND	1.74			1	
3-Chloropropene	ND	0.200		ND	0.626			1	
Carbon disulfide	ND	0.200		ND	0.623			1	
Freon-113	0.053	0.050		0.406	0.383			1	
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1	
1,1-Dichloroethane	ND	0.020		ND	0.081			1	
Methyl tert butyl ether	ND	0.200		ND	0.721			1	
Vinyl acetate	ND	0.200		ND	0.704			1	
2-Butanone	ND	0.500		ND	1.47			1	



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1829376-02 Date Collected: 07/26/18 11:14 Client ID: Q1-072518-2 Date Received: 07/30/18

Client ID: Q1-072518-2 Date Received: 07/30/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran Tetrahydrofuran	ND	0.200		ND	0.590			1
,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.071	0.020		0.447	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
richloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
I-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
,1,2-Trichloroethane	ND	0.020		ND	0.109			1
oluene	0.056	0.050		0.211	0.188			1
?-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



05/10/19

Project Name: Lab Number: **BAW - WEYMOUTH FORE RIVER**

Project Number: 101869.00

SAMPLE RESULTS

Lab ID: L1829376-02 Client ID: Q1-072518-2

Sample Location: QUINCY, WEYMOUTH , BRAINTREE Date Collected: 07/26/18 11:14

Date Received: 07/30/18 Field Prep: Not Specified

Report Date:

Campio Bopaii		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Toutatively Identified Commercials	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds Methyl Alcohol	19.6	NJ	ppbV		1
Silanol, Trimethyl-	1.85	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 11:14

Client ID: Q1-072518-2 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard% RecoveryQualifierAcceptance Criteria1,4-difluorobenzene8560-140bromochloromethane8960-140chlorobenzene-d58560-140



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-03

Client ID: B1-072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 11:56 Date Received: 07/30/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 19:47

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.399	0.200		1.97	0.989			1
Chloromethane	0.503	0.200		1.04	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.26	1.00		5.37	2.38			1
Trichlorofluoromethane	0.175	0.050		0.983	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.055	0.050		0.422	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-03 Client ID: B1-072518

QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 11:56

Date Received: 07/30/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

cample Dopuli	PpbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.073	0.020		0.459	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.064	0.050		0.241	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	0.032	0.020		0.217	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00 Lab Number:

L1829376

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1829376-03 Client ID: B1-072518

Date Collected:

07/26/18 11:56

Sample Location:

Date Received: Field Prep:

07/30/18 Not Specified

QUINCY, WEYMOUTH ,BRAINTREE

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
M - Mansfield	Lab						
ND	0.100		ND	0.461			1
ND	0.020		ND	0.087			1
ND	0.040		ND	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.098			1
ND	0.200		ND	1.04			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	M - Mansfield ND ND ND ND ND ND ND ND ND N	Results RL M - Mansfield Lab ND	Results RL MDL M - Mansfield Lab ND 0.100 ND 0.020 ND 0.040 ND 0.020 ND 0.050 ND 0.050 ND 0.050	Results RL MDL Results M - Mansfield Lab ND ND ND 0.020 ND ND 0.050 ND ND 0.050 ND	Results RL MDL Results RL M - Mansfield Lab ND 0.100 ND 0.461 ND 0.020 ND 0.087 ND 0.040 ND 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.050 ND 0.371 ND 0.050 ND 0.262	Results RL MDL Results RL MDL M - Mansfield Lab ND 0.100 ND 0.461 ND 0.020 ND 0.087 ND 0.040 ND 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND	Results RL MDL Results RL MDL Qualifier M - Mansfield Lab ND 0.100 ND 0.461 ND 0.020 ND 0.087 ND 0.040 ND 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	1.03	NJ	ppbV		1
Methyl Alcohol	24.0	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.02	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 11:56

Client ID: B1-072518 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	83		60-140



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-04 Date Collected: 07/26/18 12:19

Client ID: W1-072518 Date Received: 07/30/18 Sample Location: QUINCY, WEYMOUTH , BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 20:22

Analyst: MB

Parameter MCP Volatile Organics in Air by SI Propylene Dichlorodifluoromethane	Results M - Mansfield ND 0.395 0.487	RL Lab 0.500 0.200	MDL 	Results ND	RL	MDL	Qualifier	Factor
Propylene	ND 0.395	0.500		ND				
	0.395			ND				
Dichlorodifluoromethane		0.200		טאו	0.861			1
Siciliorodinationicularie	0.487			1.95	0.989			1
Chloromethane	0.407	0.200		1.01	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.53	1.00		6.01	2.38			1
Trichlorofluoromethane	0.173	0.050		0.972	0.281			1
sopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.054	0.050		0.414	0.383			1
rans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
/inyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-04

Client ID: W1-072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 12:19

Date Received: 07/30/18
Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.020	0.020		0.098	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.071	0.020		0.447	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Γoluene	0.075	0.050		0.283	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	0.028	0.020		0.190	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-04

Client ID: W1-072518

Sample Location: QUINCY, WEYMOUTH , BRAINTREE

Date Collected:

07/26/18 12:19

Date Received: Field Prep:

07/30/18 Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	l Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	1.41	J	ppbV		1
Unknown	1.93	J	ppbV		1
Cyclotrisiloxane, Hexamethyl-	6.80	NJ	ppbV		1
Methyl Alcohol	12.5	NJ	ppbV		1
Silanol, Trimethyl-	30.5	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 12:19

Client ID: W1-072518 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard% RecoveryQualifierAcceptance Criteria1,4-difluorobenzene8260-140bromochloromethane8760-140chlorobenzene-d58760-140



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-05

Client ID: H1-072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07

07/26/18 12:36 07/30/18

Date Received: Field Prep:

Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 20:56

Analyst: MB

PpbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
l - Mansfield	Lab						
ND	0.500		ND	0.861			1
0.400	0.200		1.98	0.989			1
0.518	0.200		1.07	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	5.00		ND	9.42			1
ND	0.200		ND	0.874			1
1.96	1.00		4.66	2.38			1
0.178	0.050		1.00	0.281			1
ND	0.500		ND	1.23			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.200		ND	0.626			1
ND	0.200		ND	0.623			1
0.056	0.050		0.429	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.200		ND	0.704			1
ND	0.500		ND	1.47			1
	ND 0.400 0.518 ND	Results RL I - Mansfield Lab ND 0.500 0.400 0.200 0.518 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.100 ND 5.00 ND 0.200 1.96 1.00 0.178 0.050 ND 0.500 ND 0.500 ND 0.500 ND 0.200 ND 0.200 ND 0.020 ND 0.200 ND 0.200 ND 0.200 ND 0.200 ND 0.200 ND 0.200	Results RL MDL I - Mansfield Lab ND 0.500 0.400 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 5.00 ND 0.200 ND 0.200 ND 0.500 ND 0.500 ND 0.500 ND 0.200 ND 0.200 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.200 ND 0.200 ND 0.200	Results RL MDL Results I - Mansfield Lab ND 0.500 ND 0.400 0.200 1.98 0.518 0.200 1.07 ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.100 ND ND 0.100 ND ND 0.200 ND ND 0.200 ND ND 0.500 ND ND 0.500 ND ND 0.500 ND ND 0.200 ND ND 0.200 ND ND 0.020 ND ND 0.020 ND ND 0.020	Results RL MDL Results RL I - Mansfield Lab ND 0.500 ND 0.861 0.400 0.200 1.98 0.989 0.518 0.200 1.07 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.874 1.96 1.00 ND 0.874 1.96 1.00 ND 0.281 ND 0.500 ND 0.281 ND 0.500 ND 0.626	Results RL MDL Results RL MDL I - Mansfield Lab ND 0.500 ND 0.861 0.400 0.200 1.98 0.989 0.518 0.200 1.07 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.100 ND 0.078 ND 0.100 ND 0.874 ND 0.200 ND 0.874 ND 0.200 ND 0.874 ND 0.500 ND <td>Results RL MDL Results RL MDL Qualifier I - Mansfield Lab ND 0.500 ND 0.861 0.400 0.200 1.98 0.989 0.518 0.200 1.07 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.078 ND 0.100 ND 0.874 ND 0.200 ND 0.874 <t< td=""></t<></td>	Results RL MDL Results RL MDL Qualifier I - Mansfield Lab ND 0.500 ND 0.861 0.400 0.200 1.98 0.989 0.518 0.200 1.07 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.078 ND 0.100 ND 0.874 ND 0.200 ND 0.874 <t< td=""></t<>



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-05

Client ID: H1-072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 12:36

Date Received: 07/30/18

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.073	0.020		0.459	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number: L1829376

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1829376-05 Client ID: H1-072518

Date Collected: 07/26/18 12:36

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Received: 07/30/18
Field Prep: Not Specified

Campio Bopaii	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
Silanol, Trimethyl-	1.26	NJ	ppbV		1
Methyl Alcohol	18.1	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 12:36

Client ID: H1-072518 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	81		60-140



07/26/18 12:56

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1829376-06 Date Collected:

Client ID: W2-072518 Date Received: 07/30/18
Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 21:31

Analyst: MB

	ppbV ug/m3					Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.372	0.200		1.84	0.989			1
Chloromethane	0.479	0.200		0.989	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	1.98	1.00		4.70	2.38			1
Trichlorofluoromethane	0.171	0.050		0.961	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.052	0.050		0.399	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-06 Client ID: W2-072518

Sample Location: QUINCY, W

QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 0

07/26/18 12:56

Date Received: Field Prep:

07/30/18 Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Fetrahydrofuran	ND	0.200		ND	0.590			1
,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.071	0.020		0.447	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
richloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.066	0.050		0.249	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1829376-06

Client ID: W2-072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 12:56

Date Received: 07/30/18

Field Prep: Not Specified

Campic Boptii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	2.18	NJ	ppbV		1
Methyl Alcohol	15.8	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.29	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 12:56

Client ID: W2-072518 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-07

Client ID: BLANK 072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 00:00 Date Received: 07/30/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 17:25

Analyst: MB

	ppbV		ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SII	И - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1829376

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1829376-07 Client ID: BLANK 072518

Client ID. BLANK 072516

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/

07/26/18 00:00 07/30/18

Date Received: 07/30/18
Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1829376

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1829376-07 Client ID: BLANK 072518

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE

Date Collected: 07/26/18 00:00

Date Received: 07/30/18
Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	l Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	4.54	NJ	ppbV		1
Silanol, Trimethyl-	18.0	NJ	ppbV		1
Unknown	2.83	J	ppbV		1
Unknown	1.55	J	ppbV		1



Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 07/26/18 00:00

Client ID: BLANK 072518 Date Received: 07/30/18

Sample Location: QUINCY, WEYMOUTH ,BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	97		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

Project Number: 101869.00 **Report Date:** 05/10/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	145966-	-4	
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

Project Number: 101869.00 **Report Date:** 05/10/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	145966-	-4	
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1829376

Project Number: 101869.00 **Report Date:** 05/10/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
- Mansfield	Lab for sa	mple(s):	01-07 Bate	ch: WG1	145966-	4	
ND	0.020		ND	0.087			1
ND	0.040		ND	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
ND	0.020		ND	0.087			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.098			1
ND	0.200		ND	1.04			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	- Mansfield ND	Results RL - Mansfield Lab for same same same same same same same same	Results RL MDL ND 0.020 ND 0.040 ND 0.020 ND 0.050 ND 0.050 ND 0.050	Results RL MDL Results ND 0.020 ND ND 0.020 ND ND 0.040 ND ND 0.020 ND ND 0.050 ND	Results RL MDL Results RL - Mansfield Lab for sample(s): 01-07 Batch: WG1 ND 0.020 ND 0.087 ND 0.040 ND 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.050 ND 0.371 ND 0.050 ND 0.262	Results RL MDL Results RL MDL - Mansfield Lab for sample(s): 01-07 Batch: WG1145966-4 ND 0.020 ND 0.087 ND 0.040 ND 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.371 ND 0.050 ND 0.371 ND 0.050 ND 0.362	Results RL MDL Results RL MDL Qualifier ND 0.020 ND 0.087 ND ND 0.040 ND 0.174 ND ND 0.020 ND 0.207 ND ND 0.020 ND 0.085 ND ND 0.020 ND 0.087 ND ND <td< td=""></td<>

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L18

L1829376

Parameter	LCS %Recovery	Qual	LCSI %Recov		Qual	%Recovery Limits	RPD	Qual	RPD Limits	
MCP Volatile Organics in Air by SIM -	- Mansfield Lab Associ	ated sample(s):	01-07	Batch:	WG11459	966-3				
Propylene	89		-			70-130	-			
Dichlorodifluoromethane	91		-			70-130	-			
Chloromethane	87		-			70-130	-			
Freon-114	88		-			70-130	-			
Vinyl chloride	87		-			70-130	-			
1,3-Butadiene	93		-			70-130	-			
Bromomethane	85		-			70-130	-			
Chloroethane	82		-			70-130	-			
Ethanol	106		-			70-130	-			
Vinyl bromide	79		-			70-130	-			
Acetone	94		-			50-150	-			
Trichlorofluoromethane	85		-			70-130	-			
Isopropanol	90		-			70-130	-			
1,1-Dichloroethene	88		-			70-130	-			
Methylene chloride	94		-			70-130	-			
3-Chloropropene	103		-			70-130	-			
Carbon disulfide	83		-			70-130	-			
Freon-113	86		-			70-130	-			
trans-1,2-Dichloroethene	85		-			70-130	-			
1,1-Dichloroethane	87		-			70-130	-			
Methyl tert butyl ether	90		-			70-130	-			
Vinyl acetate	103		-			70-130	-			
2-Butanone	94		-			70-130	-			



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1829376

arameter	LCS %Recovery	LC Qual %Rec		Qual	%Recovery Limits	RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM -	Mansfield Lab Associated	sample(s): 01-07	Batch:	WG114596	66-3			
cis-1,2-Dichloroethene	87		-		70-130	-		
Ethyl Acetate	92		-		70-130	-		
Chloroform	89		-		70-130	-		
Tetrahydrofuran	86		-		70-130	-		
1,2-Dichloroethane	89		-		70-130	-		
n-Hexane	99		-		70-130	-		
1,1,1-Trichloroethane	98		-		70-130	-		
Benzene	92		-		70-130	-		
Carbon tetrachloride	98		-		70-130	-		
Cyclohexane	99		-		70-130	-		
1,2-Dichloropropane	94		-		70-130	-		
Bromodichloromethane	97		-		70-130	-		
1,4-Dioxane	100		-		50-150	-		
Trichloroethene	91		-		70-130	-		
2,2,4-Trimethylpentane	108		-		70-130	-		
cis-1,3-Dichloropropene	98		-		70-130	-		
4-Methyl-2-pentanone	108		-		70-130	-		
trans-1,3-Dichloropropene	86		-		70-130	-		
1,1,2-Trichloroethane	94		-		70-130	-		
Toluene	90		-		70-130	-		
2-Hexanone	100		-		70-130	-		
Dibromochloromethane	98		-		70-130	-		
1,2-Dibromoethane	90		-		70-130	-		



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L182

L1829376

Report Date:

05/10/19

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfi	eld Lab Associa	ted sample(s):	01-07	Batch:	WG11459	966-3			
Tetrachloroethene	88		-			70-130	-		
Chlorobenzene	91		-			70-130	-		
Ethylbenzene	93		-			70-130	-		
p/m-Xylene	96		-			70-130	-		
Bromoform	97		-			70-130	-		
Styrene	95		-			70-130	-		
o-Xylene	99		-			70-130	-		
1,3,5-Trimethybenzene	101		-			70-130	-		
1,2,4-Trimethylbenzene	108		-			70-130	-		
Benzyl chloride	100		-			70-130	-		
1,3-Dichlorobenzene	102		-			70-130	-		
1,4-Dichlorobenzene	102		-			70-130	-		
1,2-Dichlorobenzene	105		-			70-130	-		
1,2,4-Trichlorobenzene	104		-			50-150	-		
Naphthalene	99		-			50-150	-		
Hexachlorobutadiene	121		-			50-150	-		

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1829376

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab 072518-2			WG1145966-5		L1829376-02 Client ID: Q1-
Propylene	ND	ND	ppbV	NC	25
Dichlorodifluoromethane	0.390	0.386	ppbV	1	25
Chloromethane	0.483	0.478	ppbV	1	25
Freon-114	ND	ND	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
1,3-Butadiene	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
Ethanol	ND	ND	ppbV	NC	25
Vinyl bromide	ND	ND	ppbV	NC	25
Acetone	2.16	2.06	ppbV	5	25
Trichlorofluoromethane	0.171	0.169	ppbV	1	25
Isopropanol	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
3-Chloropropene	ND	ND	ppbV	NC	25
Carbon disulfide	ND	ND	ppbV	NC	25
Freon-113	0.053	0.052	ppbV	2	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1829376

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab 072518-2	•		WG1145966-5		L1829376-02 Client ID: Q1-
Vinyl acetate	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	ND	ND	ppbV	NC	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.071	0.070	ppbV	1	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1829376

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab 072518-2	•	•	WG1145966-5		L1829376-02 Client ID: Q1-
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.056	0.054	ppbV	4	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
1,3,5-Trimethybenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Naphthalene	ND	ND	ppbV	NC	25



Lab Number: **Project Name:** BAW - WEYMOUTH FORE RIVER L1829376

Project Number: 101869.00 Report Date: 05/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	=	RPD .imits	
MCP Volatile Organics in Air by SIM - Mansfield Lab 072518-2	Associated sample(s): 0	11-07 QC Batch ID:	WG1145966-5	QC Sample	: L1829376-0	2 Client ID: Q	1-
Hexachlorobutadiene	ND	ND	ppbV	NC		25	



BAW - WEYMOUTH FORE RIVER L1829376

Project Number: 101869.00 Report Date: 05/10/19

Canister and Flow Controller Information

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Pressure (in. Hg)			Flow Out mL/min	Flow In mL/min	
L1829376-01	Q1-072518-1	0147	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.6	9
L1829376-01	Q1-072518-1	2322	6.0L Can	07/24/18	269578	L1827582-03	Pass	-29.7	-5.5	-	-	-	-
L1829376-02	Q1-072518-2	0058	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.8	14
L1829376-02	Q1-072518-2	1547	6.0L Can	07/24/18	269578	L1827582-01	Pass	-29.6	-4.9	-	-	-	-
L1829376-03	B1-072518	01068	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.6	9
L1829376-03	B1-072518	786	6.0L Can	07/24/18	269578	L1827856-03	Pass	-30.0	-9.3	-	-	-	-
L1829376-04	W1-072518	0682	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.7	11
L1829376-04	W1-072518	1993	6.0L Can	07/24/18	269578	L1827582-02	Pass	-29.8	-6.3	-	-	-	-
L1829376-05	H1-072518	0335	Flow 5	07/24/18	269578		-	-	-	Pass	3.2	3.1	3
L1829376-05	H1-072518	1691	6.0L Can	07/24/18	269578	L1827856-01	Pass	-30.0	-11.7	-	-	-	-
L1829376-06	W2-072518	0118	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.7	11
L1829376-06	W2-072518	753	6.0L Can	07/24/18	269578	L1827856-02	Pass	-30.0	-5.2	-	-	-	-
L1829376-07	BLANK 072518	0729	Flow 5	07/24/18	269578		-	-	-	Pass	3.3	3.9	17
L1829376-07	BLANK 072518	2046	6.0L Can	07/24/18	269578	L1827433-02	Pass	-29.7	-29.6	-	-	-	-



Project Name:

L1827433

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: **CAN 2046 SHELF 49** Date Received: 07/18/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/18/18 17:11

Analyst: MB

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827433

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: CAN 2046 SHELF 49 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.	ppbV ug/m3			Dilution				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827433

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: CAN 2046 SHELF 49 Date Received: 07/18/18

Sample Location:

Field Prep: Not Specified

Запре Верш.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827433

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: **CAN 2046 SHELF 49** Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbVug/m3			Dilution				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1827433

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: **CAN 2046 SHELF 49** Date Received:

07/18/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	88		60-140



L1827433

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: **CAN 2046 SHELF 49** Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/18/18 17:11

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827433

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827433-02

Date Collected: 07/18/18 09:00 Client ID: CAN 2046 SHELF 49 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mans	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



07/18/18 09:00

Date Collected:

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1827433

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827433-02

Client ID: CAN 2046 SHELF 49 Date Received:

07/18/18 Sample Location: Field Prep: Not Specified

Campic Deptin.								
•		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/19/18 11:02

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

	ppbV				ug/m3	_	Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3		Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827582

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827582-01

Client ID: CAN 1547 SHELF 46

Sample Location:

Date Collected:

07/18/18 16:00

Date Received:

07/19/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	86		60-140



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/19/18 11:02

Analyst: MB

		Vdqq			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-01

Date Collected: 07/18/18 16:00 Client ID: **CAN 1547 SHELF 46** Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

		Vdqq		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1827582

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-01

Date Collected: Client ID: **CAN 1547 SHELF 46**

Date Received: 07/19/18 Not Specified

07/18/18 16:00

Sample Location: Field Prep:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	86		60-140



L1827582

Not Specified

Lab Number:

Field Prep:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location:

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/19/18 11:35

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Foluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827582

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep:

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1827582

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-02

Client ID: CAN 1993 SHELF 47

Sample Location:

Date Collected: Date Received: 07/18/18 16:00

07/19/18

Field Prep:

Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	84		60-140



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/19/18 11:35

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mans	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1827582

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-02

Date Collected: 07/18/18 16:00 Client ID: CAN 1993 SHELF 47 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mar	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/19/18 12:07

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827582

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location: Field Prep:

Parameter	ppbV			ug/m3				Dilution
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827582

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827582-03

Client ID: CAN 2322 SHELF 51

Sample Location:

Date Collected:

07/18/18 16:00

Date Received:

07/19/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	89		60-140



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/19/18 12:07

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827582

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-03

Date Collected: 07/18/18 16:00 Client ID: CAN 2322 SHELF 51 Date Received: 07/19/18

Sample Location:

Field Prep: Not Specified

Заттріе Беріті.		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



07/18/18 16:00

Date Collected:

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1827582

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827582-03

Client ID: CAN 2322 SHELF 51 Date Received:

07/19/18 Sample Location: Field Prep: Not Specified

Campic Dopin.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	89		60-140



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/20/18 16:45

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827856

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location: Field Prep:

Запре Берш.	ppbV				ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lat)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827856

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827856-01

Client ID: CAN 1691 SHELF 56

Sample Location:

Date Collected:

07/19/18 16:00

Date Received:

07/20/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	104		60-140
chlorobenzene-d5	100		60-140



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/20/18 16:45

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3	ug/m3		Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



L1827856

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION**

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-01

Date Collected: 07/19/18 16:00 Client ID: CAN 1691 SHELF 56 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Campic Deptin.								
• •		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	100		60-140



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827856-02

Date Collected: 07/19/18 16:00 Client ID: CAN 753 SHELF 57 Date Received:

Sample Location:

07/20/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/20/18 17:18

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827856

07/19/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827856-02

Client ID: CAN 753 SHELF 57 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827856

07/19/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827856-02

Client ID: CAN 753 SHELF 57 Date Received:

Sample Location:

Date Received: 07/20/18
Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827856

07/19/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827856-02

Client ID: CAN 753 SHELF 57 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



L1827856

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION**

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-02

Date Collected: 07/19/18 16:00 Client ID: **CAN 753 SHELF 57** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	94		60-140



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827856-02

Date Collected: 07/19/18 16:00 Client ID: CAN 753 SHELF 57 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/20/18 17:18

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-02

Date Collected: 07/19/18 16:00 Client ID: CAN 753 SHELF 57 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



07/19/18 16:00

Date Collected:

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1827856

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-02

Client ID: CAN 753 SHELF 57 Date Received:

07/20/18 Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/20/18 17:51

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827856

Not Specified

Lab Number:

Field Prep:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location:

·		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L1827856

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-03

Client ID: CAN 786 SHELF 58

Date Collected:

07/19/18 16:00

Date Received:

07/20/18

Field Prep:

Not Specified

Sample Depth:

Sample Location:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	97		60-140



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/20/18 17:51

Analyst: GJ

	ppbV			ug/m3			Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
field Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Field Lab ND ND ND ND ND ND ND ND ND N	Results RL field Lab ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.050 ND 0.020 ND 0.020 ND 0.500 ND 0.020 ND 0.100 ND 0.020	Results RL MDL field Lab ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.500 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.020 ND 0.02	Results RL MDL Results field Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020	Results RL MDL Results RL field Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.050 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072	Results RL MDL Results RL MDL field Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.020 ND 0.081	Results RL MDL Results RL MDL Qualifier field Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.264 ND 0.050 ND 0.281 ND 0.050 ND 0.079 ND 0.050 ND 0.079



L1827856

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

•	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - I	Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L1827856

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1827856-03

Date Collected: 07/19/18 16:00 Client ID: **CAN 786 SHELF 58** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

· ·		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	97		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1829376

Project Number: 101869.00 **Report Date:** 05/10/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Cooler Custody Seal

N/A Absent

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рH	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L1829376-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1829376-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1829376-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1829376-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1829376-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1829376-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1829376-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1829376Project Number:101869.00Report Date:05/10/19

GLOSSARY

Acronyms

EDL

LOQ

MS

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

 Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

SRM

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1829376Project Number:101869.00Report Date:05/10/19

 The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- The lower value for the two columns has been reported due to obvious interference.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- $\label{eq:main_equation} \textbf{M} \qquad \text{-Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.}$
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- ${f P}$ The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1829376Project Number:101869.00Report Date:05/10/19

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

Serial_No:05101915:51

ID No.:17873 Revision 12

Published Date: 10/9/2018 4:58:19 PM

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-

Tetramethylbenzene: 4-Ethyltoluene

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE,

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

ΔLPH	AIR A		YSIS		PAGE /	_OF_/	Date	Rec'd in I	Lab:	7/3	1/18			Job #: U		376
	Mansfield, MA 02048	Projec	t Informa				Rep	ort Infor	mation	- Data	Delivera	bles	Billing I	nformation		
	800 FAX: 508-822-3288	Project	Name: Fo	re Rive	n Sh	dy	O FA	AX	1				☐ Same as	s Client info	PO#:	
Client Informa	tion	Project	Location: 6	Quincy,	Wojmo	oh, 84	Me Al	DEx Criteria C	hecker							
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Address: Wa//	Experiment Station	Project I	Manager: 7	Thomas	McG	ath		Other For MAIL (stan		f report)		Regulato	ory Require	ments/Rer	ort Limi
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Email: Thomas	MCGRATHOSER, M.	5	ar u	☐ RUSH (on	y-comtrmed & pre	approved!)							AN	ALYSIS	_	
☐ These samples !	have been previously analyzed by Alpha Specific Requirements/Com	Date Du	ie:		Time:								110	1/11/	7	
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	A	II Co	umn	s Be	low	Must	Ве	Fille	d O	ut			MM BSBS			
ALPHA Lab ID (Lab Use Only)	Sample ID		CO	LLECTIC	IAI	Final Vacuum		Sampler's		ID	I D - Flow	70.75 70.75	APH Summer Ing	///_		
9376,01	Q1-072518-1	11		III3		_	-	Initials	Size	232		V	\\\(\alpha\)	1	e Comment	
.02	Q1-072518-2	7/26/18	4	100000	Law.							~		+10	Top.	1105
.03	Bi-072518		120	110	79.0	5.11	111	Bu	02	701	0038	N V		h	11	11
.04	WI-072518	76110	1010	1156	7.7	0.77	MA	BJW	64	786	1068	1		1		- 2
		76/18	1217	1219	d1.60	6.54	AA	BIW	61	1993	0682	Х		h	17	11
05	H1-072518	10008	1236	1236	30.93	12.35	AA	BW	64	1691	0338	X		17	1,	"
106	W2-072518	1/26/18	1256	1256	30.20	3.75	AA	BN	61	73	118	X		"	11	11
. 0+	Blank 2046 8/1	7/26/18		N/	1		AA	BJW	64	2046		×		n	N	17
			All	ms 2	35											
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Page 108 of 1	09-15)	2	8 AL	967/	3/19	200	1	This	201	,	- 11	30/18	1600	See reven	Conditions.	



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							W2 = Embridge Site
							B1 = BELD Property
							Q1 = Clement O'Brien Tower



ANALYTICAL REPORT

Lab Number: L1830289

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 05/10/19

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Number: 101869.00

Lab Number:

L1830289

Report Date: 05/10/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1830289-01	Q1-073118-1	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 11:00	08/03/18
L1830289-02	Q1-073118-2	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 11:00	08/03/18
L1830289-03	B1-073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 11:29	08/03/18
L1830289-04	W1-073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 11:47	08/03/18
L1830289-05	H1-073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 12:15	08/03/18
L1830289-06	W2-073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 12:40	08/03/18
L1830289-07	BLANK 073118	AIR	QUINCY WEYMOUTH BRAINTREE	08/01/18 00:00	08/03/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

Project Number: 101869.00 **Report Date:** 05/10/19

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A res	sponse to questions G, H and I is required for "Presumptive Certainty" status	
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289
Project Number: 101869.00 Report Date: 05/10/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.	



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1830289Project Number:101869.00Report Date:05/10/19

Case Narrative (continued)

Report Revision

May 10, 2019: This report replaces the one previously issued on August 15, 2018. The report has been amended to report additional compounds at the request of the client.

MCP Related Narratives

Canisters were released from the laboratory on July 30, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative

Date: 05/10/19

ALPHA

QC OUTLIER SUMMARY REPORT

Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number:

L1830289

Project Number: 101869.00

Report Date:

05/10/19

Recovery/RPD QC Limits Associated Data Quality
Method Client ID (Native ID) Lab ID Parameter QC Type (%) (%) Samples Assessment

There are no QC Outliers associated with this report.



AIR



Project Number: 101869.00 Lab Number: L1830289

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1830289-01

Client ID: Q1-073118-1

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Collected: 08/01/18 11:00 Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 22:06

Analyst: MB

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.394	0.200		1.95	0.989			1
Chloromethane	0.477	0.200		0.985	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	3.05	1.00		7.25	2.38			1
Trichlorofluoromethane	0.178	0.050		1.00	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	0.880	0.500		3.06	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.054	0.050		0.414	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.309	0.200		1.09	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-01 Client ID: Q1-073118-1

Sample Location: Q1-0/3118-1
QUINCY WEY

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:00

Date Received: 08/03/18

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.027	0.020		0.132	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	0.547	0.200		1.93	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.073	0.020		0.459	0.126			1
Cyclohexane	0.362	0.200		1.25	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Γoluene	0.216	0.050		0.814	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



L1830289

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1830289-01 Client ID: Q1-073118-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:00

Date Received: 08/03/18
Field Prep: Not Specified

Campic Dopuii.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air b	y SIM - Mansfield	l Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.039	0.020		0.169	0.087			1
p/m-Xylene	0.121	0.040		0.526	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	0.024	0.020		0.102	0.085			1
o-Xylene	0.050	0.020		0.217	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.066	0.020		0.324	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
unknown siloxane	2.08	J	ppbV		1
Unknown	4.06	J	ppbV		1
Cyclotrisiloxane, Hexamethyl-	54.7	NJ	ppbV		1
Unknown	27.9	J	ppbV		1
Unknown	1.30	J	ppbV		1
Silanol, Trimethyl-	257	NJ	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/01/18 11:00

Client ID: Q1-073118-1 Date Received: 08/03/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	84		60-140



Project Number: 101869.00

Lab Number: L1830289

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1830289-02 Client ID: Q1-073118-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:00 Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 22:41

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.392	0.200		1.94	0.989			1
Chloromethane	0.485	0.200		1.00	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	3.16	1.00		7.51	2.38			1
Trichlorofluoromethane	0.180	0.050		1.01	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.055	0.050		0.422	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.240	0.200		0.845	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-02 Client ID: Q1-073118-2

Sample Location: QUINCY WEYN

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/0
Date Received: 08/0

08/01/18 11:00 08/03/18

Field Prep: Not Specified

Затріе Берті.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.023	0.020		0.112	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.072	0.020		0.453	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.138	0.050		0.520	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



L1830289

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: L1830289-02 Client ID: Q1-073118-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:00

Date Received: 08/03/18
Field Prep: Not Specified

		ug/m3		Dilution			
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
SIM - Mansfield	Lab						
ND	0.100		ND	0.461			1
0.022	0.020		0.096	0.087			1
0.061	0.040		0.265	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
0.024	0.020		0.104	0.087			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.098			1
ND	0.200		ND	1.04			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND 0.022 0.061 ND	ND 0.100 0.022 0.020 0.061 0.040 ND 0.020 ND 0.050 ND 0.050	ND 0.100 0.022 0.020 0.061 0.040 ND 0.020 ND 0.020	ND	ND	ND	ND

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.42	NJ	ppbV		1
Methyl Alcohol	1.92	NJ	ppbV		1
Silanol, Trimethyl-	2.00	NJ	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/01/18 11:00

Client ID: Q1-073118-2 Date Received: 08/03/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution

Posults Qualifier Units PDI Factor

Results Qualifier Units RDL Facto

Tentatively Identified Compounds

			Acceptance
Internal Standard	% Recovery	Qualifier	Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	84		60-140



Project Number: 101869.00

Lab Number: L1830289

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1830289-03 Client ID: B1-073118

Commission Of the WEVAGUET

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:29 Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 23:15

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.392	0.200		1.94	0.989			1
Chloromethane	0.490	0.200		1.01	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	4.35	1.00		10.3	2.38			1
Trichlorofluoromethane	0.176	0.050		0.989	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.053	0.050		0.406	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00 Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-03 Client ID:

B1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Collected:

08/01/18 11:29 08/03/18

Date Received:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	l Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.028	0.020		0.137	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.072	0.020		0.453	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.115	0.050		0.433	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-03 Client ID: B1-073118

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:29

Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Sample Location:

Campio Dopaii	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SII	И - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclopropane, ethylidene-	1.13	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.14	NJ	ppbV		1
Methyl Alcohol	1.37	NJ	ppbV		1
Silanol, Trimethyl-	1.30	NJ	ppbV		1



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1830289

Project Number: Report Date: 101869.00 05/10/19

SAMPLE RESULTS

Lab ID: L1830289-03 Date Collected: 08/01/18 11:29

Client ID: B1-073118 Date Received: 08/03/18

QUINCY WEYMOUTH BRAINTREE Sample Location: Field Prep: Not Specified

Sample Depth:

ug/m3 ppbV Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor**

Qualifier RDL Results Units

Tentatively Identified Compounds

			Acceptance
Internal Standard	% Recovery	Qualifier	Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	83		60-140



Project Number: 101869.00

Lab Number: L1830289

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1830289-04 Client ID: W1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 11:47 Date Received: 08/03/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 23:50

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.391	0.200		1.93	0.989			1
Chloromethane	0.477	0.200		0.985	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	2.96	1.00		7.03	2.38			1
Trichlorofluoromethane	0.176	0.050		0.989	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.052	0.050		0.399	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-04 Client ID: W1-073118

Sample Location: QU

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/01/18 11:47

Date Received: Field Prep:

08/03/18 Not Specified

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
SIM - Mansfield	Lab						
ND	0.020		ND	0.079			1
ND	0.500		ND	1.80			1
0.024	0.020		0.117	0.098			1
ND	0.200		ND	0.590			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.705			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
0.073	0.020		0.459	0.126			1
ND	0.200		ND	0.688			1
ND	0.020		ND	0.092			1
ND	0.020		ND	0.134			1
ND	0.100		ND	0.360			1
ND	0.020		ND	0.107			1
ND	0.200		ND	0.934			1
ND	0.200		ND	0.820			1
ND	0.020		ND	0.091			1
ND	0.500		ND	2.05			1
ND	0.020		ND	0.091			1
ND	0.020		ND	0.109			1
0.102	0.050		0.384	0.188			1
ND	0.200		ND	0.820			1
ND	0.020		ND	0.170			1
ND	0.020		ND	0.154			1
ND	0.020		ND	0.136			1
ND	0.020		ND	0.137			1
	ND N	Results RL	Results RL MDL SIM - Mansfield Lab ND 0.020 ND 0.500 ND 0.020 ND 0.200 ND 0.020 ND 0.020 ND 0.100 ND 0.200 ND 0.020 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND	Results RL MDL Results IIM - Mansfield Lab ND 0.020 ND ND 0.500 ND ND 0.020 ND ND 0.	Results RL MDL Results RL SIM - Mansfield Lab ND 0.020 ND 0.079 ND 0.500 ND 1.80 0.024 0.020 ND 0.590 ND 0.200 ND 0.590 ND 0.020 ND 0.081 ND 0.020 ND 0.081 ND 0.020 ND 0.081 ND 0.020 ND 0.109 ND 0.100 ND 0.109 ND 0.100 ND 0.319 0.073 0.020 ND 0.688 ND 0.020 ND 0.688 ND 0.020 ND 0.360 ND 0.020 ND 0.107 ND 0.020 ND 0.934 <td> Results RL MDL RL RESULTS RL MDL RL RL RL RL RL RL RL </td> <td> Results RL MDL Results RL MDL Qualifier </td>	Results RL MDL RL RESULTS RL MDL RL RL RL RL RL RL RL	Results RL MDL Results RL MDL Qualifier



Project Number: 101869.00 Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-04 Client ID: W1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Collected: 08/01/18 11:47

08/03/18

Date Received: Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIN	/I - Mansfield	l Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	2.05	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	82		60-140



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-05

Client ID: H1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/01/18 12:15 08/03/18

Date Received: Field Prep:

Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/14/18 00:25

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.395	0.200		1.95	0.989			1
Chloromethane	0.483	0.200		0.997	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	3.76	1.00		8.93	2.38			1
Trichlorofluoromethane	0.179	0.050		1.01	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.056	0.050		0.429	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.209	0.200		0.736	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-05 Client ID: H1-073118

H1-0/3118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 12:15

Date Received: 08/03/18

Field Prep: Not Specified

Campio Dopuii		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.023	0.020		0.112	0.098			1
Tetrahydrofuran	0.832	0.200		2.45	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	0.584	0.200		2.06	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.075	0.020		0.472	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
richloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.148	0.050		0.558	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-05 Client ID: H1-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 12:15

Date Received: 08/03/18
Field Prep: Not Specified

Cample Depuii		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	0.056	0.040		0.243	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.022	0.020		0.096	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.021	0.020		0.103	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.08	NJ	ppbV		1
Methyl Alcohol	2.29	NJ	ppbV		1
Silanol, Trimethyl-	6.65	NJ	ppbV		1
unknown alkane	1.27	J	ppbV		1



L1830289

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/10/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/01/18 12:15

Client ID: H1-073118 Date Received: 08/03/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	83		60-140



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-06

Client ID: W2-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08

08/01/18 12:40

Date Received: Field Prep:

08/03/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/14/18 01:00

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air I	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.393	0.200		1.94	0.989			1
Chloromethane	0.483	0.200		0.997	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	3.38	1.00		8.03	2.38			1
Trichlorofluoromethane	0.178	0.050		1.00	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.054	0.050		0.414	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.252	0.200		0.887	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-06 Client ID: W2-073118

Client ID: W2-073118
Sample Location: QUINCY WE

n: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08

08/01/18 12:40

Date Received: Field Prep:

08/03/18 Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	l Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.024	0.020		0.117	0.098			1
Tetrahydrofuran Tetrahydrofuran	ND	0.200		ND	0.590			1
,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	0.515	0.200		1.82	0.705			1
,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.073	0.020		0.459	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
richloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
,1,2-Trichloroethane	ND	0.020		ND	0.109			1
oluene	0.225	0.050		0.848	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-06 Client ID: W2-073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 12:40

Date Received: 08/03/18
Field Prep: Not Specified

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
SIM - Mansfield	Lab						
ND	0.100		ND	0.461			1
0.036	0.020		0.156	0.087			1
0.117	0.040		0.508	0.174			1
ND	0.020		ND	0.207			1
0.030	0.020		0.128	0.085			1
0.045	0.020		0.195	0.087			1
0.030	0.020		0.147	0.098			1
0.097	0.020		0.477	0.098			1
ND	0.200		ND	1.04			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
0.077	0.050		0.404	0.262			1
ND	0.050		ND	0.533			1
	ND 0.036 0.117 ND 0.030 0.045 0.030 0.097 ND N	Results RL	Results RL MDL SIM - Mansfield Lab ND 0.100 0.036 0.020 0.117 0.040 ND 0.020 0.030 0.020 0.030 0.020 0.097 0.020 ND 0.020 ND ND 0.020 ND ND 0.020 ND 0.050 ND 0.050 0.077 0.050	Results RL MDL Results SIM - Mansfield Lab ND 0.100 ND 0.036 0.020 0.156 0.117 0.040 0.508 ND 0.020 ND 0.030 0.020 0.128 0.045 0.020 0.195 0.030 0.020 0.477 ND 0.200 ND ND 0.020 ND ND 0.050 ND 0.077 0.050 0.404	Results RL MDL Results RL SIM - Mansfield Lab ND 0.461 0.036 0.020 ND 0.461 0.036 0.020 0.156 0.087 0.117 0.040 0.508 0.174 ND 0.020 ND 0.207 0.030 0.020 0.128 0.085 0.045 0.020 0.147 0.098 0.097 0.020 0.477 0.098 ND 0.200 ND 1.04 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.371 0.077 0.050 0.404 0.262	Results RL MDL Results RL MDL SIM - Mansfield Lab ND 0.461 ND 0.100 ND 0.461 0.036 0.020 0.156 0.087 0.117 0.040 0.508 0.174 ND 0.020 ND 0.207 0.030 0.020 0.128 0.085 0.030 0.020 0.195 0.087 0.030 0.020 0.147 0.098 0.030 0.020 0.477 0.098 ND 0.200 ND 1.04 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120	Results RL MDL Results RL MDL Qualifier SIM - Mansfield Lab ND 0.461 0.036 0.020 0.156 0.087 0.0174

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
unknown alkane	6.10	J	ppbV		1
Silanol, Trimethyl-	1.16	NJ	ppbV		1
Methyl Alcohol	2.26	NJ	ppbV		1
Unknown	3.47	J	ppbV		1
unknown alkane	1.20	J	ppbV		1
Unknown	1.19	J	ppbV		1
Cyclopentane, Methyl-	1.29	NJ	ppbV		1



101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-06

Client ID: W2-073118

Sample Location:

Project Number:

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/01/18 12:40

Date Received:

08/03/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results ppbV RL MDL

ug/m3 RL Results

Qualifier MDL

Dilution Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
unknown alkane	1.15	J	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	84		60-140



Project Number: 101869.00 Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-07 Client ID:

BLANK 073118

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 00:00 Date Received: 08/03/18

Field Prep:

Not Specified

Sample Depth:

Sample Location:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 16:50

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air I	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

SAMPLE RESULTS

Lab ID: L1830289-07

Client ID: BLANK 073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08

08/01/18 00:00

Date Received: Field Prep:

08/03/18 Not Specified

Sample Depth:		ppbV			ug/m3			Dilutio
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air I	oy SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1830289

Report Date: 05/10/19

SAMPLE RESULTS

Lab ID: L1830289-07
Client ID: BLANK 073118

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/01/18 00:00

Date Received: 08/03/18
Field Prep: Not Specified

campio Dopani		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	l Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.02	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	104		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

Project Number: 101869.00 **Report Date:** 05/10/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SII	M - Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	145966-	-4	
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

Project Number: 101869.00 **Report Date:** 05/10/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

		ppbV			ug/m3			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIN	M - Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	145966-	-4	
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1830289

Project Number: 101869.00 **Report Date:** 05/10/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/13/18 14:35

	ppbV				ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	MDL Qualifier	
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Bato	ch: WG1	145966-4	4	
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1830289

Report Date:

05/10/19

arameter	LCS %Recovery (LC: Qual %Rec		Qual	%Recovery Limits	RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM	- Mansfield Lab Associated	sample(s): 01-07	Batch:	WG114596	66-3			
Propylene	89				70-130	-		
Dichlorodifluoromethane	91	-			70-130	-		
Chloromethane	87	-			70-130	-		
Freon-114	88	-			70-130	-		
Vinyl chloride	87	-			70-130	-		
1,3-Butadiene	93	-			70-130	-		
Bromomethane	85				70-130	-		
Chloroethane	82	-			70-130	-		
Ethanol	106	-			70-130	-		
Vinyl bromide	79	-			70-130	-		
Acetone	94				50-150	-		
Trichlorofluoromethane	85				70-130	-		
Isopropanol	90		•		70-130	-		
1,1-Dichloroethene	88		•		70-130	-		
Methylene chloride	94		•		70-130	-		
3-Chloropropene	103		•		70-130	-		
Carbon disulfide	83		•		70-130	-		
Freon-113	86		•		70-130	-		
trans-1,2-Dichloroethene	85		•		70-130	-		
1,1-Dichloroethane	87				70-130	-		
Methyl tert butyl ether	90				70-130	-		
Vinyl acetate	103				70-130	-		
2-Butanone	94				70-130	-		



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1830289

Report Date: 05/10/19

MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-07 Batch: WG1145966-3	Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
Ethyl Acetate 92 - 70-130 - Chloroform 89 - 70-130 - Tetrahydrofuran 86 - 70-130 - 1,2-Dichloroethane 89 - 70-130 - n-Hexane 99 - 70-130 - 1,1,1-Trichloroethane 98 - 70-130 - Benzene 92 - 70-130 - Carbon tetrachloride 98 - 70-130 - Cydohexane 99 - 70-130 - 1,2-Dichloropropane 94 - 70-130 - Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - <t< td=""><td>MCP Volatile Organics in Air by SIM - Mans</td><td>field Lab Associ</td><td>ated sample(s):</td><td>01-07</td><td>Batch:</td><td>WG11459</td><td>966-3</td><td></td><td></td><td></td></t<>	MCP Volatile Organics in Air by SIM - Mans	field Lab Associ	ated sample(s):	01-07	Batch:	WG11459	966-3			
Chloroform 89 - 70-130 - Tetrahydrofuran 86 - 70-130 - 1,2-Dichloroethane 89 - 70-130 - n-Hexane 99 - 70-130 - 1,1,1-Trichloroethane 98 - 70-130 - Benzene 92 - 70-130 - Carbon tetrachloride 98 - 70-130 - Cyclohexane 99 - 70-130 - 1,2-Dichloropropane 94 - 70-130 - Browndichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - 1,4-Dioxane 101 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - 4-Methyl-2-pentanone 86 - 70-130 - 1	cis-1,2-Dichloroethene	87		-			70-130	-		
Tetrahydrofuran 86 - 70-130 - 1,2-Dichloroethane 89 - 70-130 - n-Hexane 99 - 70-130 - 1,1,1-Trichloroethane 98 - 70-130 - Benzene 92 - 70-130 - Corbon tetrachloride 98 - 70-130 - Cyclohexane 99 - 70-130 - 1,2-Dichloropropane 94 - 70-130 - Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - 7ichloroethane 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 -	Ethyl Acetate	92		-			70-130	-		
1,2-Dichloroethane 89 - 70-130 - n-Hexane 99 - 70-130 - 1,1,1-Trichloroethane 98 - 70-130 - Benzene 92 - 70-130 - Carbon tetrachloride 98 - 70-130 - Cyclohexane 99 - 70-130 - 1,2-Dichloropropane 94 - 70-130 - Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - 3-3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - 2-Hexanone 100 - 70-130 - Dibr	Chloroform	89		-			70-130	-		
n-Hexane 99 - 70-130 - 1,1,1-Trichloroethane 98 - 70-130 - Benzene 92 - 70-130 - Carbon tetrachloride 98 - 70-130 - Cyclohexane 99 - 70-130 - 1,2-Dichloropropane 94 - 70-130 - Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - 2-Hexanone 100 - 70-130 -	Tetrahydrofuran	86		-			70-130	-		
1,1,1-Trichloroethane 98 - 70-130 - Benzene 92 - 70-130 - Carbon tetrachloride 98 - 70-130 - Cyclohexane 99 - 70-130 - 1,2-Dichloropropane 94 - 70-130 - Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - 70-luene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 - </td <td>1,2-Dichloroethane</td> <td>89</td> <td></td> <td>-</td> <td></td> <td></td> <td>70-130</td> <td>-</td> <td></td> <td></td>	1,2-Dichloroethane	89		-			70-130	-		
Benzene 92 - 70-130 - Carbon tetrachloride 98 - 70-130 - Cyclohexane 99 - 70-130 - 1,2-Dichloropropane 94 - 70-130 - Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	n-Hexane	99		-			70-130	-		
Carbon tetrachloride 98 - 70-130 - Cyclohexane 99 - 70-130 - 1,2-Dichloropropane 94 - 70-130 - Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	1,1,1-Trichloroethane	98		-			70-130	-		
Cyclohexane 99 - 70-130 - 1,2-Dichloropropane 94 - 70-130 - Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - 7oluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	Benzene	92		-			70-130	-		
1,2-Dichloropropane 94 - 70-130 - Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	Carbon tetrachloride	98		-			70-130	-		
Bromodichloromethane 97 - 70-130 - 1,4-Dioxane 100 - 50-150 - Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	Cyclohexane	99		-			70-130	-		
1,4-Dioxane 100 - 50-150 - Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	1,2-Dichloropropane	94		-			70-130	-		
Trichloroethene 91 - 70-130 - 2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	Bromodichloromethane	97		-			70-130	-		
2,2,4-Trimethylpentane 108 - 70-130 - cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	1,4-Dioxane	100		-			50-150	-		
cis-1,3-Dichloropropene 98 - 70-130 - 4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	Trichloroethene	91		-			70-130	-		
4-Methyl-2-pentanone 108 - 70-130 - trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	2,2,4-Trimethylpentane	108		-			70-130	-		
trans-1,3-Dichloropropene 86 - 70-130 - 1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	cis-1,3-Dichloropropene	98		-			70-130	-		
1,1,2-Trichloroethane 94 - 70-130 - Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	4-Methyl-2-pentanone	108		-			70-130	-		
Toluene 90 - 70-130 - 2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	trans-1,3-Dichloropropene	86		-			70-130	-		
2-Hexanone 100 - 70-130 - Dibromochloromethane 98 - 70-130 -	1,1,2-Trichloroethane	94		-			70-130	-		
Dibromochloromethane 98 - 70-130 -	Toluene	90		-			70-130	-		
	2-Hexanone	100		-			70-130	-		
1,2-Dibromoethane 90 - 70-130 -	Dibromochloromethane	98		-			70-130	-		
	1,2-Dibromoethane	90		-			70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1830289

Report Date: 05/10/19

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM - Mansfie	eld Lab Associa	ated sample(s):	01-07	Batch:	WG11459	966-3			
Tetrachloroethene	88		-			70-130	-		
Chlorobenzene	91		-			70-130	-		
Ethylbenzene	93		-			70-130	-		
p/m-Xylene	96		-			70-130	-		
Bromoform	97		-			70-130	-		
Styrene	95		-			70-130	-		
o-Xylene	99		-			70-130	-		
1,3,5-Trimethybenzene	101		-			70-130	-		
1,2,4-Trimethylbenzene	108		-			70-130	-		
Benzyl chloride	100		-			70-130	-		
1,3-Dichlorobenzene	102		-			70-130	-		
1,4-Dichlorobenzene	102		-			70-130	-		
1,2-Dichlorobenzene	105		-			70-130	-		
1,2,4-Trichlorobenzene	104		-			50-150	-		
Naphthalene	99		-			50-150	-		
Hexachlorobutadiene	121		-			50-150	-		

BAW - WEYMOUTH FORE RIVER L1830289

Project Number: 101869.00 Report Date: 05/10/19

Canister and Flow Controller Information

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Pressure (in. Hg)	on Receipt (in. Hg)	Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1830289-01	Q1-073118-1	0984	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.0	10
L1830289-01	Q1-073118-1	2323	6.0L Can	07/30/18	269579	L1828528-02	Pass	-29.6	-11.6	-	-	-	-
L1830289-02	Q1-073118-2	0542	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.5	6
L1830289-02	Q1-073118-2	956	6.0L Can	07/30/18	269579	L1828016-03	Pass	-29.6	-5.0	-	-	-	-
L1830289-03	B1-073118	0500	Flow 5	07/30/18	269579		-	-	-	Pass	3.2	3.7	14
L1830289-03	B1-073118	691	6.0L Can	07/30/18	269579	L1828528-01	Pass	-29.5	-6.2	-	-	-	-
L1830289-04	W1-073118	0330	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.6	9
L1830289-04	W1-073118	1872	6.0L Can	07/30/18	269579	L1828016-01	Pass	-29.5	-4.7	-	-	-	-
L1830289-05	H1-073118	0059	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.7	11
L1830289-05	H1-073118	603	6.0L Can	07/30/18	269579	L1828288-03	Pass	-29.6	-4.0	-	-	-	-
L1830289-06	W2-073118	0483	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.5	6
L1830289-06	W2-073118	2049	6.0L Can	07/30/18	269579	L1828016-02	Pass	-29.6	-5.1	-	-	-	-
L1830289-07	BLANK 073118	0237	Flow 5	07/30/18	269579		-	-	-	Pass	3.3	3.3	0
L1830289-07	BLANK 073118	2052	6.0L Can	07/30/18	269579	L1828288-01	Pass	-29.6	-29.6	-	-	-	



Project Name:

Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L

L1828016

Project Number: CANISTER QC BAT

Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-01

Client ID: CAN 1872 SHELF 51

Sample Location:

Date Collected: 07/20/18 10:00 Date Received: 07/20/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/21/18 15:39

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828016

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location: Field Prep:

Запріє Веріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Запре Верш.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

оапріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1828016

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-01

Client ID: CAN 1872 SHELF 51

Sample Location: Field Pre

Date Received: 07/20/18

Field Prep:

Date Collected:

Not Specified

07/20/18 10:00

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	100		60-140



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/21/18 15:39

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-01

Date Collected: 07/20/18 10:00 Client ID: CAN 1872 SHELF 51 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1828016

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-01

Client ID: CAN 1872 SHELF 51 Date

Date Received: 07/20/18
Field Prep: Not Specified

07/20/18 10:00

Date Collected:

Sample Depth:

Sample Location:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	99		60-140



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/21/18 16:12

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.	Vdqq				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	Vdqq				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1828016

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: **CAN 2049 SHELF 52** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/21/18 16:12

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-02

Date Collected: 07/20/18 10:00 Client ID: CAN 2049 SHELF 52 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1828016

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-02

Client ID: CAN 2049 SHELF 52

Date Collected: 07/20/18 10:00 Date Received: 07/20/18

Field Prep: Not Specified

Sample Depth:

Sample Location:

Parameter		ppbV			ug/m3		Dilution	
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mar	sfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140



L1828016

07/20/18 10:00

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-03

Date Collected: Client ID: **CAN 956 SHELF 53** Date Received:

Sample Location:

07/20/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/21/18 16:44

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.	Vdqq				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1828016

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: CAN 956 SHELF 53 Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	89		60-140



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/21/18 16:44

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828016

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828016-03

Date Collected: 07/20/18 10:00 Client ID: **CAN 956 SHELF 53** Date Received: 07/20/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV	ug/m3					Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mans	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1828016

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828016-03

Client ID: CAN 956 SHELF 53

Sample Location:

Date Collected:

07/20/18 10:00

Date Received: (Field Prep:

07/20/18 Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	89		60-140



L1828288

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: **CAN 2052 SHELF 44** Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/24/18 09:11

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828288

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: CAN 2052 SHELF 44 Date Received: 07/24/18

Sample Location: Field Prep:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828288

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: CAN 2052 SHELF 44 Date Received: 07/24/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828288

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: CAN 2052 SHELF 44 Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1828288

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: **CAN 2052 SHELF 44** Date Received: 07/24/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	83		60-140



L1828288

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: **CAN 2052 SHELF 44** Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM 07/24/18 09:11 Analytical Date:

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab ND ND ND ND ND ND ND ND ND N	ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.050 ND 0.020 ND 0.020	Results RL MDL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.050 ND 0.500 ND 0.020 ND 0.050 ND 0.020 ND 0.020 ND 0.020	Results RL MDL Results sfield Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 <td>Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND</td> <td>Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<></td>	Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.072 ND	Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<>	Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989



L1828288

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828288-01

Date Collected: 07/23/18 16:00 Client ID: CAN 2052 SHELF 44 Date Received: 07/24/18

Sample Location: Field Prep:

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier F	Factor
Volatile Organics in Air by SIM - Ma	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1828288

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828288-01

Client ID: CAN 2052 SHELF 44

Date Collected: 07/23/18 16:00 Date Received: 07/24/18

Field Prep: Not Specified

Sample Depth:

Sample Location:

Parameter		ppbV			ug/m3			Dilution
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria		
1,4-difluorobenzene	81		60-140		
bromochloromethane	86		60-140		
chlorobenzene-d5	82		60-140		



L1828288

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828288-03 Date Collected: 07/23/18 16:00

Client ID: CAN 603 SHELF 54 Date Received: 07/24/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/24/18 10:16

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	ld Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828288

07/23/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828288-03

Client ID: CAN 603 SHELF 54 Date Received:

Sample Location:

Date Received: 07/24/18
Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828288

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828288-03

Date Collected: 07/23/18 16:00 Client ID: CAN 603 SHELF 54 Date Received: 07/24/18

Sample Location: Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828288

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828288-03

Date Collected: 07/23/18 16:00 Client ID: **CAN 603 SHELF 54** Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1828288

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828288-03

Client ID: CAN 603 SHELF 54

Sample Location:

Date Collected:

07/23/18 16:00

Date Received:

07/24/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	90		60-140



L1828288

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828288-03

Date Collected: 07/23/18 16:00 Client ID: CAN 603 SHELF 54 Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/24/18 10:16

Analyst: MB

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828288

07/23/18 16:00

Lab Number:

Date Collected:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828288-03

Client ID: CAN 603 SHELF 54 Date Received: 07/24/18

Sample Location:

Field Prep: Not Specified

Заттріе Беріті.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number:

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828288-03

Client ID: CAN 603 SHELF 54

Sample Location:

Date Collected:

07/23/18 16:00

Date Received: (Field Prep:

07/24/18 Not Specified

L1828288

Parameter		ppbV			ug/m3			Dilution
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 07/25/18 09:55 Analytical Date:

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828528-01

Client ID: CAN 691 SHELF 53

Sample Location:

Date Collected: 07/24/18 16:00 Date Received: 07/25/18

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623		J	1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location:

Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



07/24/18 16:00

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1828528

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-01

Date Collected: Client ID: **CAN 691 SHELF 53** Date Received:

07/25/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	77		60-140



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/25/18 09:55

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-01

Date Collected: 07/24/18 16:00 Client ID: **CAN 691 SHELF 53** Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

Запіріе Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



07/24/18 16:00

Date Collected:

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1828528

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-01

Client ID: **CAN 691 SHELF 53** Date Received:

07/25/18 Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	l - Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	82		60-140



Not Specified

Lab Number:

Field Prep:

Project Name: BATCH CANISTER CERTIFICATION

L1828528 **Project Number:** CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: **CAN 2323 SHLEF 46** Date Received: 07/25/18

Sample Location:

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 07/25/18 10:28 Analytical Date:

Analyst: RY

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
rans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
ert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
ert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

	ppbV		ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1828528

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-02

Date Collected: Client ID: **CAN 2323 SHLEF 46**

Date Received: 07/25/18

Field Prep: Not Specified

07/24/18 16:00

Sample Depth:

Sample Location:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	82		60-140



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/10/19

Air Canister Certification Results

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: **CAN 2323 SHLEF 46** Date Received: 07/25/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/25/18 10:28

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1828528

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location:

Field Prep: Not Specified

Sample Deptil.		ppbV			ualm2		-	
Parameter	Results	RL	MDL	Results	ug/m3 RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - M			IIIDE					
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1828528

Project Number: CANISTER QC BAT **Report Date:** 05/10/19

Air Canister Certification Results

Lab ID: L1828528-02

Date Collected: 07/24/18 16:00 Client ID: CAN 2323 SHLEF 46 Date Received: 07/25/18

Sample Location: Field Prep: Not Specified

Campic Doptii.	Vdqq				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	insfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	87		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1830289

Project Number: 101869.00 **Report Date:** 05/10/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Cooler Custody Seal

N/A Absent

Container Info	rmation		Initial	Final	Temp			Frozen		
Container ID	Container Type	Cooler	рН	рН	deg C Pres		Seal	Date/Time	Analysis(*)	
L1830289-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)	
L1830289-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)	
L1830289-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)	
L1830289-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)	
L1830289-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)	
L1830289-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)	
L1830289-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)	



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1830289Project Number:101869.00Report Date:05/10/19

GLOSSARY

Acronyms

EDL

LOD

LOQ

MS

NP

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

 Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

 - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

 Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

includes any adjustments from diffutions, concentrations of moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1830289Project Number:101869.00Report Date:05/10/19

 The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- The lower value for the two columns has been reported due to obvious interference.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- ${f P}$ The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1830289Project Number:101869.00Report Date:05/10/19

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.
Facility: Company-wide
Department: Quality Assurance

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:**17873**

Revision 12

Published Date: 10/9/2018 4:58:19 PM Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: <u>NPW</u>: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; <u>SCM</u>: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE,

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan III, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Document Type: Form Pre-Qualtrax Document ID: 08-113

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Collect Date:	8 1 18							4
Site ID	Canister Id	Regulator ID	Start Time (DST)		Collect Time (DST)	End Vacuum	Comments/Observations	
Q.9073118-1	2323	0984	11 00	-30.57	3 11:00	-11.58	GRASS-TALL	
Q1 -2		0542	11 00	- 30.78		- 4.84	(m)	
B 1073118	0691	0500	11:29	-31.50	11:29	-6.02	165	į
W1073118	1872	0330	11:47	-30.24	11:47	-4.33	· /	+
H1073118	0603	0059	12:15	-30.72	12:15	-3.61	SAND BLASTING OF PUMP STATE	gi Burl Dir
W 2 0731/8	2049	0483	12:40	-38.81	12:40	-4.51		
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Collector:		No.	15					
			- PT					
Collector Signature			100		4.	a 5	V	1.60



ANALYTICAL REPORT

Lab Number: L1831651

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street

Lawrence, MA 01843

ATTN: Thomas McGrath Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 05/13/19

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: Report Date: L1831651

ate: 05/13/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1831651-01	Q1-080618-1	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 11:07	08/10/18
L1831651-02	Q1-080618-2	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 11:09	08/10/18
L1831651-03	B1-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 11:37	08/10/18
L1831651-04	W1-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 11:54	08/10/18
L1831651-05	H1-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 12:37	08/10/18
L1831651-06	W2-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 12:53	08/10/18
L1831651-07	B-080618	AIR	QUINCY WEYMOUTH BRAINTREE	08/07/18 00:00	08/10/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

Project Number: 101869.00 **Report Date:** 05/13/19

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An af	firmative response to questions A through F is required for "Presumptive Certainty" status	
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status						
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO				
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES				
ı	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES				

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:05/13/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.	



Serial_No:05131916:58

Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:05/13/19

Case Narrative (continued)

Report Revision

May 13, 2019: This report replaces the one previously issued on August 20, 2018. The report has been amended to report additional compounds at the request of the client.

MCP Related Narratives

Canisters were released from the laboratory on August 3, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative Date: 05/13/19

Christopher J. Anderson

ALPHA

QC OUTLIER SUMMARY REPORT

Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number:

L1831651

Project Number: 101869.00

.00 Report Date:

Date: 05/13/19

Recovery/RPD QC Limits Associated Data Quality
Method Client ID (Native ID) Lab ID Parameter QC Type (%) (%) Samples Assessment

There are no QC Outliers associated with this report.



AIR



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-01

Client ID: Q1-080618-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:07 Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 20:29

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.379	0.200		1.87	0.989			1
Chloromethane	0.485	0.200		1.00	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	0.020	0.020		0.044	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	5.50	1.00		13.1	2.38			1
Trichlorofluoromethane	0.187	0.050		1.05	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.058	0.050		0.445	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.480	0.200		1.69	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-01 Client ID: Q1-080618-1

Client ID: Q1-080618 Sample Location: QUINCY W

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08

08/07/18 11:07

Date Received: Field Prep:

08/10/18 Not Specified

Затріе Беріп.		ppbV			ug/m3		_	Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.027	0.020		0.132	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	0.107	0.100		0.342	0.319			1
Carbon tetrachloride	0.069	0.020		0.434	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.210	0.050		0.791	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00 Lab Number: L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-01 Client ID:

Q1-080618-1

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Collected: 08/07/18 11:07

Date Received: 08/10/18 Field Prep: Not Specified

ppbV			ug/m3			_	Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
IM - Mansfield	Lab						
ND	0.100		ND	0.461			1
0.050	0.020		0.217	0.087			1
0.141	0.040		0.612	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
0.052	0.020		0.226	0.087			1
ND	0.020		ND	0.098			1
0.034	0.020		0.167	0.098			1
ND	0.200		ND	1.04			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND 0.050 0.141 ND ND 0.052 ND 0.034 ND	Results RL	Results RL MDL IM - Mansfield Lab ND 0.100 0.050 0.020 0.141 0.040 ND 0.020 ND 0.050 ND 0.050 ND 0.050	Results RL MDL Results IM - Mansfield Lab ND 0.100 ND 0.050 0.020 0.217 0.141 0.040 0.612 ND 0.020 ND ND 0.020 ND 0.052 0.020 ND 0.034 0.020 ND ND 0.050 ND	Results RL MDL Results RL IM - Mansfield Lab ND 0.461 0.461 ND 0.050 0.020 0.217 0.087 0.141 0.040 0.612 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 0.052 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.200 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.050 ND 0.371 ND 0.050 ND 0.262	Results RL MDL Results RL MDL IM - Mansfield Lab ND 0.461 ND 0.100 ND 0.461 0.050 0.020 0.217 0.087 0.141 0.040 0.612 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.052 0.020 ND 0.098 ND 0.034 0.020 ND 0.098 ND 0.034 0.020 ND 0.109 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND	Results RL MDL Results RL MDL Qualifier IM - Mansfield Lab ND 0.461 0.050 0.020 0.217 0.087 0.050 0.020 0.612 0.174 <

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	1.88	NJ	ppbV		1
Ethane, 1,2-dimethoxy-	2.72	NJ	ppbV		1
Methyl Alcohol	10.6	NJ	ppbV		1
Silanol, Trimethyl-	2.53	NJ	ppbV		1



L1831651

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-01

Client ID: Q1-080618-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:07

Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140



L1831651

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-02 Date Collected: 08/07/18 11:09

Client ID: Q1-080618-2 Date Received: 08/10/18 Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 21:04

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.411	0.200		2.03	0.989			1
Chloromethane	0.503	0.200		1.04	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	0.021	0.020		0.047	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	5.47	1.00		13.0	2.38			1
Trichlorofluoromethane	0.191	0.050		1.07	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.059	0.050		0.452	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.484	0.200		1.70	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-02 Client ID: Q1-080618-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:09

Date Received: 08/10/18
Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.027	0.020		0.132	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	0.108	0.100		0.345	0.319			1
Carbon tetrachloride	0.070	0.020		0.440	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Foluene	0.211	0.050		0.795	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
etrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-02 Client ID: Q1-080618-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:09

Date Received: 08/10/18
Field Prep: Not Specified

ppbV			ug/m3			_	Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
IM - Mansfield	Lab						
ND	0.100		ND	0.461			1
0.043	0.020		0.187	0.087			1
0.112	0.040		0.486	0.174			1
ND	0.020		ND	0.207			1
ND	0.020		ND	0.085			1
0.041	0.020		0.178	0.087			1
ND	0.020		ND	0.098			1
0.036	0.020		0.177	0.098			1
ND	0.200		ND	1.04			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.020		ND	0.120			1
ND	0.050		ND	0.371			1
ND	0.050		ND	0.262			1
ND	0.050		ND	0.533			1
	ND 0.043 0.112 ND ND 0.041 ND 0.036 ND	Results RL	Results RL MDL IM - Mansfield Lab ND 0.100 0.043 0.020 0.112 0.040 ND 0.020 ND 0.050 ND 0.050	Results RL MDL Results IM - Mansfield Lab ND 0.100 ND 0.043 0.020 0.187 0.112 0.040 0.486 ND 0.020 ND ND 0.020 ND 0.041 0.020 ND ND 0.020 ND ND 0.200 ND ND 0.020 ND ND 0.050 ND	Results RL MDL Results RL IM - Mansfield Lab ND 0.461 0.461 ND 0.100 ND 0.461 0.043 0.020 0.187 0.087 0.112 0.040 0.486 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 0.041 0.020 ND 0.098 0.036 0.020 ND 0.098 ND 0.200 ND 1.04 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.050 ND 0.371 ND 0.050 ND 0.262	Results RL MDL Results RL MDL IM - Mansfield Lab ND 0.461 ND 0.100 ND 0.461 0.043 0.020 0.187 0.087 0.112 0.040 0.486 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.098 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND 0.020 ND 0.120 ND	Results RL MDL Results RL MDL Qualifier IM - Mansfield Lab ND 0.461 ND 0.100 ND 0.461 0.043 0.020 0.187 0.087 0.112 0.040 0.486 0.174 ND 0.020 ND 0.207 ND 0.020 ND 0.085 ND 0.020 ND 0.085 ND 0.020 ND 0.098 ND 0.036 0.020 ND 0.177 0.098 ND 0.020 ND 0.120 ND 0.120 ND 0.020 ND 0.120 ND 0.120 ND 0.020 ND 0.120 ND 0.120 ND 0.050 ND 0.371

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
1,3-Butadiene, 2-methyl-	1.15	NJ	ppbV		1
Methyl Alcohol	13.8	NJ	ppbV		1
Silanol, Trimethyl-	2.90	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	3.17	NJ	ppbV		1
Acetophenone	1.26	NJ	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-02

Client ID: Q1-080618-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:09

Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	86		60-140



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-03

Client ID: B1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:37 Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 22:14

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.389	0.200		1.92	0.989			1
Chloromethane	0.480	0.200		0.991	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	5.94	1.00		14.1	2.38			1
Trichlorofluoromethane	0.184	0.050		1.03	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.057	0.050		0.437	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.681	0.200		2.40	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-03

Client ID: B1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:37

Date Received: 08/10/18
Field Prep: Not Specified

Campio Bopuii	<u> </u>	Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.029	0.020		0.142	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	0.208	0.200		0.733	0.705			1
1,1,1-Trichloroethane	0.020	0.020		0.109	0.109			1
Benzene	0.111	0.100		0.355	0.319			1
Carbon tetrachloride	0.071	0.020		0.447	0.126			1
Cyclohexane	0.589	0.200		2.03	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.292	0.050		1.10	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	0.039	0.020		0.264	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number: L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-03 Client ID: B1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:37

Date Received: 08/10/18
Field Prep: Not Specified

сатрю ворит.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.049	0.020		0.213	0.087			1
p/m-Xylene	0.154	0.040		0.669	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	0.032	0.020		0.136	0.085			1
o-Xylene	0.059	0.020		0.256	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.053	0.020		0.261	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	86.0	NJ	ppbV		1
Methyl Alcohol	24.9	NJ	ppbV		1
unknown alkane	1.00	J	ppbV		1
Unknown	4.58	J	ppbV		1
Silanol, Trimethyl-	90.4	NJ	ppbV		1
Unknown	2.12	J	ppbV		1
Unknown	12.4	J	ppbV		1



L1831651

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 05/13/19

SAMPLE RESULTS

L1831651-03

Client ID: B1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Collected: 08/07/18 11:37

Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Lab ID:

ppbV ug/m3 Dilution Factor RL Qualifier Results MDL **Parameter** RL Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
1,2-Pentadiene	1.86	NJ	ppbV		1
Acetophenone	1.62	NJ	ppbV		1
Unknown	27.8	J	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	88		60-140



Project Number: 101869.00

Lab Number: L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-04 Client ID: W1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:54

Date Received: 08/10/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 22:49

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air I	by SIM - Mansfield	l Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.393	0.200		1.94	0.989			1
Chloromethane	0.539	0.200		1.11	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	6.50	1.00		15.4	2.38			1
Trichlorofluoromethane	0.194	0.050		1.09	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.060	0.050		0.460	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.664	0.200		2.34	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-04 Client ID: W1-080618

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:54

Date Received: 08/10/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

Campio Dopuii	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SI	M - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.028	0.020		0.137	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	0.268	0.200		0.945	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	0.151	0.100		0.482	0.319			1
Carbon tetrachloride	0.074	0.020		0.465	0.126			1
Cyclohexane	0.216	0.200		0.743	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.354	0.050		1.33	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-04 Client ID: W1-080618

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:54

Date Received: 08/10/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

Campic Deptil.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	. Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.065	0.020		0.282	0.087			1
p/m-Xylene	0.210	0.040		0.912	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.075	0.020		0.326	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.068	0.020		0.334	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
1,2-Pentadiene	1.69	NJ	ppbV		1
Unknown	1.29	J	ppbV		1
Methyl Alcohol	14.1	NJ	ppbV		1
unknown alkane	1.24	J	ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.14	NJ	ppbV		1
unknown alkane	1.11	J	ppbV		1



L1831651

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

101960 00 Report Date: 05

Project Number: 101869.00

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-04

Client ID: W1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 11:54

Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	79		60-140



Project Number: 101869.00

Lab Number: L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-05

Client ID: H1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 12:37 Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 23:24

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	l Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.406	0.200		2.01	0.989			1
Chloromethane	0.512	0.200		1.06	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	6.01	1.00		14.3	2.38			1
Trichlorofluoromethane	0.194	0.050		1.09	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.060	0.050		0.460	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.398	0.200		1.40	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-05 Client ID: H1-080618

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/07/18 12:37

Date Received: Field Prep:

08/10/18

Not Specified

Sample Depth:

Sample Location:

Campio Dopuii	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.029	0.020		0.142	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.072	0.020		0.453	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
richloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.143	0.050		0.539	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	0.044	0.020		0.298	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number: L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-05 Client ID: H1-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 12:37

Date Received: 08/10/18
Field Prep: Not Specified

сипро вории.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.020	0.020		0.087	0.087			1
p/m-Xylene	0.051	0.040		0.222	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.020	0.020		0.087	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
1,3-Butadiene, 2-methyl-	1.81	NJ	ppbV		1
Unknown	1.00	J	ppbV		1
Cyclotrisiloxane, Hexamethyl-	1.60	NJ	ppbV		1
Silanol, Trimethyl-	3.20	NJ	ppbV		1
Methyl Alcohol	11.0	NJ	ppbV		1
Unknown	1.68	J	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/07/18 12:37

Client ID: H1-080618 Date Received: 08/10/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Results Qualifier Units RDL ^r

Tentatively Identified Compounds

			Acceptance
Internal Standard	% Recovery	Qualifier	Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	84		60-140



Project Number: 101869.00

Lab Number: L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-06

Client ID: W2-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 12:53 Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/17/18 00:00

Analyst: RY

		PpbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air I	by SIM - Mansfield	l Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.360	0.200		1.78	0.989			1
Chloromethane	0.509	0.200		1.05	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	6.35	1.00		15.1	2.38			1
Trichlorofluoromethane	0.186	0.050		1.05	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.061	0.050		0.468	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	0.592	0.200		2.08	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-06

Client ID: W2-080618
Sample Location: QUINCY WE

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 12:53

Date Received: 08/10/18

Field Prep: Not Specified

	ppbV ug/m3					Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.026	0.020		0.127	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	0.102	0.100		0.326	0.319			1
Carbon tetrachloride	0.069	0.020		0.434	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.207	0.050		0.780	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-06 Client ID: W2-080618

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 12:53

Date Received: 08/10/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	0.036	0.020		0.156	0.087			1
p/m-Xylene	0.104	0.040		0.452	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	0.039	0.020		0.169	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	0.032	0.020		0.157	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	10.4	NJ	ppbV		1
Cyclopropane, ethylidene-	1.14	NJ	ppbV		1
Silanol, Trimethyl-	2.94	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.22	NJ	ppbV		1



L1831651

Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00 Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-06

Client ID: W2-080618

QUINCY WEYMOUTH BRAINTREE Sample Location:

Date Collected: 08/07/18 12:53

Date Received: 08/10/18

Field Prep: Not Specified

Sample Depth:

ug/m3 ppbV Dilution **Factor** RL Qualifier Results MDL RL **Parameter** Results MDL

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution **Factor** Qualifier RDL Results Units

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	85		60-140



Project Number: 101869.00

Lab Number: L1831651

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1831651-07 Client ID: B-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/07/18 00:00

Date Received: 08/10/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/17/18 10:22

Analyst: RY

MCP Volatile Organics in Air by SIM - Ma Propylene Dichlorodifluoromethane Chloromethane Freon-114 Vinyl chloride 1,3-Butadiene Bromomethane Chloroethane Ethanol	sults ansfield La	RL ab	MDL	Results	RL	MDL	Qualifier	Factor
Propylene Dichlorodifluoromethane Chloromethane Freon-114 Vinyl chloride 1,3-Butadiene Bromomethane Chloroethane Ethanol		ab						
Dichlorodifluoromethane Chloromethane Freon-114 Vinyl chloride 1,3-Butadiene Bromomethane Chloroethane Ethanol	ND							
Chloromethane Freon-114 Vinyl chloride 1,3-Butadiene Bromomethane Chloroethane Ethanol		0.500		ND	0.861			1
Freon-114 Vinyl chloride 1,3-Butadiene Bromomethane Chloroethane Ethanol	ND	0.200		ND	0.989			1
Vinyl chloride 1,3-Butadiene Bromomethane Chloroethane Ethanol	ND	0.200		ND	0.413			1
1,3-Butadiene Bromomethane Chloroethane Ethanol	ND	0.050		ND	0.349			1
Bromomethane Chloroethane Ethanol	ND	0.020		ND	0.051			1
Chloroethane Ethanol	ND	0.020		ND	0.044			1
Ethanol	ND	0.020		ND	0.078			1
	ND	0.100		ND	0.264			1
Vinyl bromide	ND	5.00		ND	9.42			1
	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone				ND	1.47			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-07

Client ID: B-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 0

08/07/18 00:00

Date Received: Field Prep:

08/10/18 Not Specified

Sample Depth.	ppbV ug/m3				Dilution			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1831651

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1831651-07 Client ID: B-080618

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/07/18 00:00

Date Received: Field Prep:

08/10/18 Not Specified

Sample Depth:

Сатріс Веріп.		ppbV ug/m3			Dilution			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140



Serial_No:05131916:58

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 19:18

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batc	h: WG1	147478	-4	
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1



Serial_No:05131916:58

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 19:18

		ppbV			ug/m3		Dilution	
Parameter	Results RL MDL		Results RL MDL			Qualifier	Factor	
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Bato	h: WG1	147478	-4	
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1



Serial_No:05131916:58

Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1831651

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/16/18 19:18

Parameter Results RL MDL Results RL MDL MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-07 Batch: WG1147478-4 Ethylbenzene ND 0.020 ND 0.087 p/m-Xylene ND 0.040 ND 0.174 Bromoform ND 0.020 ND 0.020 Styrene ND 0.020 ND 0.085 0-Xylene ND 0.020 ND 0.098 1,3,5-Trimethybenzene ND 0.020 ND 0.098		Dilution
Ethylbenzene ND 0.020 ND 0.087 p/m-Xylene ND 0.040 ND 0.174 Bromoform ND 0.020 ND 0.207 Styrene ND 0.020 ND 0.085 o-Xylene ND 0.020 ND 0.087	Qualifier	Factor
p/m-Xylene ND 0.040 ND 0.174 Bromoform ND 0.020 ND 0.207 Styrene ND 0.020 ND 0.085 o-Xylene ND 0.020 ND 0.087		
Bromoform ND 0.020 ND 0.207 Styrene ND 0.020 ND 0.085 o-Xylene ND 0.020 ND 0.087		1
Styrene ND 0.020 ND 0.085 o-Xylene ND 0.020 ND 0.087		1
o-Xylene ND 0.020 ND 0.087		1
		1
1,3,5-Trimethybenzene ND 0.020 ND 0.098		1
		1
1,2,4-Trimethylbenzene ND 0.020 ND 0.098		1
Benzyl chloride ND 0.200 ND 1.04		1
1,3-Dichlorobenzene ND 0.020 ND 0.120		1
1,4-Dichlorobenzene ND 0.020 ND 0.120		1
1,2-Dichlorobenzene ND 0.020 ND 0.120		1
1,2,4-Trichlorobenzene ND 0.050 ND 0.371		1
Naphthalene ND 0.050 ND 0.262		1
Hexachlorobutadiene ND 0.050 ND 0.533		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1831651

rameter	LCS %Recovery Qu	LCSD ual %Recovery	%Recovery Qual Limits	RPD	Qual	RPD Limits
CP Volatile Organics in Air by SIM - M	ansfield Lab Associated s	ample(s): 01-07 Batcl	h: WG1147478-3			
Propylene	87	-	70-130	-		
Dichlorodifluoromethane	92	-	70-130	-		
Chloromethane	86	-	70-130	-		
Freon-114	93	-	70-130	-		
Vinyl chloride	89	-	70-130	-		
1,3-Butadiene	92	-	70-130	-		
Bromomethane	91	-	70-130	-		
Chloroethane	84	-	70-130	-		
Ethanol	104	-	70-130	-		
Vinyl bromide	85	-	70-130	-		
Acetone	96	-	50-150	-		
Trichlorofluoromethane	90	-	70-130	-		
Isopropanol	90	-	70-130	-		
1,1-Dichloroethene	88	-	70-130	-		
Methylene chloride	95	-	70-130	-		
3-Chloropropene	98	-	70-130	-		
Carbon disulfide	87	-	70-130	-		
Freon-113	93	-	70-130	-		
trans-1,2-Dichloroethene	86	-	70-130	-		
1,1-Dichloroethane	90	-	70-130	-		
Methyl tert butyl ether	91	-	70-130	-		
Vinyl acetate	97	-	70-130	-		
2-Butanone	92	-	70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1831651

Parameter	LCS %Recovery	LCSI Qual %Recov		%Recovery Limits	RPD	Qual	RPD Limits	
MCP Volatile Organics in Air by SIM - M	Mansfield Lab Associated	d sample(s): 01-07	Batch: WG114	17478-3				
cis-1,2-Dichloroethene	89	-		70-130	-			
Ethyl Acetate	93	-		70-130	-			
Chloroform	95	-		70-130	-			
Tetrahydrofuran	91	-		70-130	-			
1,2-Dichloroethane	91	-		70-130	-			
n-Hexane	91	-		70-130	-			
1,1,1-Trichloroethane	95	-		70-130	-			
Benzene	88	-		70-130	-			
Carbon tetrachloride	97	-		70-130	-			
Cyclohexane	91	-		70-130	-			
1,2-Dichloropropane	89	-		70-130	-			
Bromodichloromethane	96	-		70-130	-			
1,4-Dioxane	98	-		50-150	-			
Trichloroethene	94	-		70-130	-			
2,2,4-Trimethylpentane	102	-		70-130	-			
cis-1,3-Dichloropropene	93	-		70-130	-			
4-Methyl-2-pentanone	97	-		70-130	-			
trans-1,3-Dichloropropene	81	-		70-130	-			
1,1,2-Trichloroethane	94	-		70-130	-			
Toluene	93	-		70-130	-			
2-Hexanone	96	-		70-130	-			
Dibromochloromethane	105	-		70-130	-			
1,2-Dibromoethane	95	-		70-130	-			

Lab Control Sample Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1831651

arameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
ICP Volatile Organics in Air by SIM - Man	sfield Lab Associa	ted sample(s):	01-07	Batch:	WG1147	478-3			
Tetrachloroethene	98		-			70-130	-		
Chlorobenzene	97		-			70-130	-		
Ethylbenzene	97		-			70-130	-		
p/m-Xylene	99		-			70-130	-		
Bromoform	107		-			70-130	-		
Styrene	99		-			70-130	-		
o-Xylene	102		-			70-130	-		
1,3,5-Trimethybenzene	107		-			70-130	-		
1,2,4-Trimethylbenzene	113		-			70-130	-		
Benzyl chloride	103		-			70-130	-		
1,3-Dichlorobenzene	112		-			70-130	-		
1,4-Dichlorobenzene	112		-			70-130	-		
1,2-Dichlorobenzene	116		-			70-130	-		
1,2,4-Trichlorobenzene	120		-			50-150	-		
Naphthalene	109		-			50-150	-		
Hexachlorobutadiene	140		-			50-150	-		

Lab Duplicate Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1831651

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab 080618-2	•		WG1147478-5	QC Sample:	L1831651-02 Client ID: Q1-
Propylene	ND	ND	ppbV	NC	25
Dichlorodifluoromethane	0.411	0.401	ppbV	2	25
Chloromethane	0.503	0.501	ppbV	0	25
Freon-114	ND	ND	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
1,3-Butadiene	0.021	0.021	ppbV	0	25
Bromomethane	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
Ethanol	ND	ND	ppbV	NC	25
Vinyl bromide	ND	ND	ppbV	NC	25
Acetone	5.47	5.42	ppbV	1	25
Trichlorofluoromethane	0.191	0.189	ppbV	1	25
Isopropanol	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
3-Chloropropene	ND	ND	ppbV	NC	25
Carbon disulfide	ND	ND	ppbV	NC	25
Freon-113	0.059	0.058	ppbV	2	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25



Lab Duplicate Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1831651

05/13/19

Project Number: 101869.00 Report Date:

arameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
ICP Volatile Organics in Air by SIM - Mansfield Lab 80618-2	Associated sample(s):	01-07 QC Batch ID:	WG1147478-5	QC Sample	e: L1831651-02 Client ID: Q1-
Vinyl acetate	0.484	0.482	ppbV	0	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	0.027	0.027	ppbV	0	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	0.108	0.106	ppbV	2	25
Carbon tetrachloride	0.070	0.070	ppbV	0	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25



Lab Duplicate Analysis Batch Quality Control

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1831651

Report Date: 05/13/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab	Associated sample(s):	01-07 QC Batch ID:	WG1147478-5	QC Sample:	L1831651-02 Client ID: Q1-
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.211	0.215	ppbV	2	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	0.043	0.043	ppbV	0	25
p/m-Xylene	0.112	0.112	ppbV	0	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
o-Xylene	0.041	0.042	ppbV	2	25
1,3,5-Trimethybenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	0.036	0.035	ppbV	3	25
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Naphthalene	ND	ND	ppbV	NC	25



L1831651

Lab Duplicate Analysis
Batch Quality Control

BAW - WEYMOUTH FORE RIVER Batch Quality

Project Number: 101869.00 **Report Date:** 05/13/19

nt Date. 00/10/

Lab Number:

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab 080618-2	Associated sample(s):	01-07 QC Batch ID:	WG1147478-5	QC Sample	: L1831651	-02 Client ID: Q1-
Hexachlorobutadiene	ND	ND	ppbV	NC		25



Project Name:

BAW - WEYMOUTH FORE RIVER L1831651

Project Number: 101869.00 Report Date: 05/13/19

Canister and Flow Controller Information

								Initial	Pressure	Flow			
Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Pressure (in. Hg)	on Receipt (in. Hg)	Controler Leak Chk	Flow Out mL/min	Flow In mL/min	
L1831651-01	Q1-080618-1	0044	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	3.6	9
L1831651-01	Q1-080618-1	2257	6.0L Can	08/03/18	269580	L1829262-01	Pass	-29.5	-5.1	-	-	-	-
L1831651-02	Q1-080618-2	0850	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	3.7	11
L1831651-02	Q1-080618-2	1623	6.0L Can	08/03/18	269580	L1825241-01	Pass	-29.8	-7.5	-	-	-	-
L1831651-03	B1-080618	0963	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	3.5	6
L1831651-03	B1-080618	970	6.0L Can	08/03/18	269580	L1827325-02	Pass	-29.7	-6.6	-	-	-	-
L1831651-04	W1-080618	0335	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	2.9	13
L1831651-04	W1-080618	1524	6.0L Can	08/03/18	269580	L1825420-03	Pass	-29.7	-11.5	-	-	-	-
L1831651-05	H1-080618	0206	Flow 5	08/03/18	269580		-	-	-	Pass	3.3	3.8	14
L1831651-05	H1-080618	705	6.0L Can	08/03/18	269580	L1825927-01	Pass	-29.7	-7.1	-	-	-	-
L1831651-06	W2-080618	0114	Flow 5	08/03/18	269580		-	-	-	Pass	3.2	3.6	12
L1831651-06	W2-080618	1631	6.0L Can	08/03/18	269580	L1825504-02	Pass	-29.7	-7.0	-	-	-	-
L1831651-07	B-080618	0834	Flow 5	08/03/18	269580		-	-	-	Pass	3.2	3.4	6
L1831651-07	B-080618	1704	6.0L Can	08/03/18	269580	L1825927-02	Pass	-29.7	-29.4	-	-	-	



Project Name:

Project Name: BATCH CANISTER CERTIFICATION Lab Number:

L1825241

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825241-01

Client ID: CAN 1623 SHELF 41

Date Received:

Date Collected:

07/02/18 16:00

Sample Location:

07/03/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/03/18 18:54

Analyst: RY

	ppbV				ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825241

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825241

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825241

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825241

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825241-01

Date Collected: Client ID: CAN 1623 SHELF 41 Date Received:

07/03/18 Field Prep: Not Specified

07/02/18 16:00

Sample Depth:

Sample Location:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	91		60-140



Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

L1825241 **Project Number:** CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM 07/05/18 15:49 Analytical Date:

Analyst: MB

ppbV			ug/m3				Dilution
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
sfield Lab							
ND	0.200		ND	0.989			1
ND	0.200		ND	0.413			1
ND	0.050		ND	0.349			1
ND	0.020		ND	0.051			1
ND	0.020		ND	0.044			1
ND	0.020		ND	0.078			1
ND	0.100		ND	0.264			1
ND	1.00		ND	2.38			1
ND	0.050		ND	0.281			1
ND	0.500		ND	1.09			1
ND	0.020		ND	0.079			1
ND	0.500		ND	1.74			1
ND	0.050		ND	0.383			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.081			1
ND	0.200		ND	0.721			1
ND	0.500		ND	1.47			1
ND	0.020		ND	0.079			1
ND	0.020		ND	0.098			1
ND	0.020		ND	0.081			1
ND	0.020		ND	0.109			1
ND	0.100		ND	0.319			1
ND	0.020		ND	0.126			1
ND	0.020		ND	0.092			1
	Sfield Lab ND ND ND ND ND ND ND ND ND N	ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 1.00 ND 0.500 ND 0.500 ND 0.500 ND 0.050 ND 0.050 ND 0.020 ND 0.020	Results RL MDL sfield Lab ND 0.200 ND 0.200 ND 0.050 ND 0.020 ND 0.020 ND 0.020 ND 0.020 ND 0.100 ND 0.050 ND 0.500 ND 0.020 ND 0.050 ND 0.020 ND 0.020 ND 0.020	Results RL MDL Results sfield Lab ND 0.200 ND ND 0.200 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.100 ND ND 0.050 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 ND ND 0.020 <td>Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.0721 ND</td> <td>Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<></td>	Results RL MDL Results RL Sfield Lab ND 0.989 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 1.00 ND 0.264 ND 1.00 ND 0.281 ND 0.050 ND 0.281 ND 0.500 ND 1.09 ND 0.500 ND 0.079 ND 0.050 ND 0.383 ND 0.020 ND 0.079 ND 0.020 ND 0.0721 ND	Results RL MDL Results RL MDL Sfield Lab ND 0.200 ND 0.989 ND 0.200 ND 0.413 ND 0.050 ND 0.349 ND 0.050 ND 0.051 ND 0.020 ND 0.051 ND 0.020 ND 0.044 ND 0.020 ND 0.044 ND 0.020 ND 0.078 ND 0.100 ND 0.264 ND 0.100 ND 0.281 ND 0.050 ND 0.079 ND 0.500 ND 0.079 ND 0.050 ND 0.079 <t< td=""><td>Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989 </td></t<>	Results RL MDL Results RL MDL Qualifier Sfield Lab ND 0.200 ND 0.989



L1825241

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825241-01

Date Collected: 07/02/18 16:00 Client ID: CAN 1623 SHELF 41 Date Received: 07/03/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825241

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825241-01

Client ID: CAN 1623 SHELF 41

Sample Location:

Date Collected:

07/02/18 16:00

Date Received:

07/03/18

Field Prep:

Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/05/18 16:43

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield L	_ab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Запріє Веріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Запре Верш.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825420

Not Specified

Lab Number:

Field Prep:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location:

оатре Берт.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	b							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825420

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 18:46

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825420

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: CAN 1524 SHELF 53 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825420

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825420-03

Date Collected: 07/03/18 16:00 Client ID: **CAN 1524 SHELF 53** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

• •		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	/lansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	91		60-140



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/05/18 18:00

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Затріє Беріт.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location:

Field Prep: Not Specified

оатріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825504

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: **CAN 1631 SHELF 58** Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140



L1825504

Not Specified

Lab Number:

Field Prep:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location:

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/06/18 19:56

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383		J	1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825504

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	F4
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825504

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825504-02

Date Collected: 07/05/18 09:00 Client ID: CAN 1631 SHELF 58 Date Received: 07/05/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mar	nsfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	91		60-140



L1825927

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: CAN 705 SHELF 56 Date Received: 07/10/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/11/18 22:10

Analyst: RY

		ppbV			ug/m3		Dilut	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1



L1825927

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: **CAN 705 SHELF 56** Date Received: 07/10/18

Sample Location: Field Prep:

•		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1
Bromodichloromethane	ND	0.200		ND	1.34			1



L1825927

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: CAN 705 SHELF 56 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

Запре Бериі.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1
Nonane	ND	0.200		ND	1.05			1



L1825927

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: CAN 705 SHELF 56 Date Received: 07/10/18

Sample Location:

Field Prep: Not Specified

оатріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
sopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
l-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825927

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825927-01

Client ID: CAN 705 SHELF 56

Sample Location:

Date Collected:

07/09/18 16:00

Date Received:

07/10/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	1.8	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140



L1825927

07/09/18 16:00

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825927-01

Date Collected: Client ID: CAN 705 SHELF 56 Date Received:

Sample Location:

07/10/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/12/18 16:08

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825927

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-01

Date Collected: 07/09/18 16:00 Client ID: **CAN 705 SHELF 56** Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

Sample Depth:	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Γoluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1825927

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825927-01

Client ID: CAN 705 SHELF 56

Sample Location:

Date Collected:

07/09/18 16:00

Date Received:

07/10/18

Field Prep:

Not Specified

Campic Dopin.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Ma	insfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria		
1,4-difluorobenzene	93		60-140		
bromochloromethane	95		60-140		
chlorobenzene-d5	90		60-140		



L1825927

Project Name: BATCH CANISTER CERTIFICATION

Lab Number:

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/11/18 22:48

Analyst: RY

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1



L1825927

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1
Bromodichloromethane	ND	0.200		ND	1.34			1



L1825927

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location:

Field Prep: Not Specified

	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield L	_ab							
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1
Nonane	ND	0.200		ND	1.05			1



L1825927

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

Cample Depth.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825927

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: **CAN 1704 SHELF 57** Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140



L1825927

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/12/18 16:42

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281		J	1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383		J	1
rans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1825927

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location: Field Prep:

	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
sopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1825927

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1825927-02

Date Collected: 07/09/18 16:00 Client ID: CAN 1704 SHELF 57 Date Received: 07/10/18

Sample Location: Field Prep: Not Specified

• •		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Nansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140



L1827325

07/17/18 16:00

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1827325-02

Date Collected: Client ID: CAN 970 SHELF 52 Date Received:

Sample Location:

07/18/18 Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/18/18 11:09

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1827325

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: CAN 970 SHELF 52 Date Received: 07/18/18

Sample Location: Field Prep:

Запре Берш.		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1827325

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: CAN 970 SHELF 52 Date Received: 07/18/18

Sample Location:

Field Prep: Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1827325

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: CAN 970 SHELF 52 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Volatile Organics in Air - Mansfield Lab Nonane ND 0.200 ND Isopropylbenzene ND 0.200 ND	1.05 0.983 0.793	Factor 1
Nonane ND 0.200 ND Isopropylbenzene ND 0.200 ND	0.983	
Isopropylbenzene ND 0.200 ND	0.983	
		4
Bromobenzene ND 0.200 ND	0.793	1
		1
2-Chlorotoluene ND 0.200 ND	1.04	1
n-Propylbenzene ND 0.200 ND	0.983	1
4-Chlorotoluene ND 0.200 ND	1.04	1
4-Ethyltoluene ND 0.200 ND	0.983	1
1,3,5-Trimethylbenzene ND 0.200 ND	0.983	1
ert-Butylbenzene ND 0.200 ND	1.10	1
,2,4-Trimethylbenzene ND 0.200 ND	0.983	1
Decane ND 0.200 ND	1.16	1
Benzyl chloride ND 0.200 ND	1.04	1
,3-Dichlorobenzene ND 0.200 ND	1.20	1
,4-Dichlorobenzene ND 0.200 ND	1.20	1
sec-Butylbenzene ND 0.200 ND	1.10	1
o-Isopropyltoluene ND 0.200 ND	1.10	1
1,2-Dichlorobenzene ND 0.200 ND	1.20	1
n-Butylbenzene ND 0.200 ND	1.10	1
1,2-Dibromo-3-chloropropane ND 0.200 ND	1.93	1
Undecane ND 0.200 ND	1.28	1
Dodecane ND 0.200 ND	1.39	1
,2,4-Trichlorobenzene ND 0.200 ND	1.48	1
Naphthalene ND 0.200 ND	1.05	1
1,2,3-Trichlorobenzene ND 0.200 ND	1.48	1
Hexachlorobutadiene ND 0.200 ND	2.13	1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827325

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1827325-02

Client ID: CAN 970 SHELF 52

Sample Location:

Date Collected:

07/17/18 16:00

Date Received:

07/18/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	83		60-140



L1827325

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: CAN 970 SHELF 52 Date Received: 07/18/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/18/18 11:09

Analyst: RY

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1827325

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1827325-02

Date Collected: 07/17/18 16:00 Client ID: CAN 970 SHELF 52 Date Received: 07/18/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1827325

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1827325-02

Client ID: CAN 970 SHELF 52

Sample Location:

Date Collected:

07/17/18 16:00

Date Received:

07/18/18

Field Prep: Not Specified

• •		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Nansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	84		60-140



L1829262

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/30/18 19:53

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1829262

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location: Field Prep: Not Specified

Запре Бериі.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1829262

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location: Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1829262

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location: Field Prep: Not Specified

оатре Берт.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	b							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1829262

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829262-01

Client ID: CAN 2257 SHELF 56

Sample Location:

Date Collected:

07/27/18 16:00

Date Received:

07/30/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	98		60-140



L1829262

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: **CAN 2257 SHELF 56** Date Received: 07/30/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/30/18 19:53

Analyst: MB

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1829262

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829262-01

Date Collected: 07/27/18 16:00 Client ID: CAN 2257 SHELF 56 Date Received: 07/30/18

Sample Location:

Field Prep: Not Specified

Sample Deptil.		ppbV			ug/m3			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - M			IIIDE					
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1829262

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829262-01

Client ID: CAN 2257 SHELF 56

Sample Location:

Date Collected: 07/

07/27/18 16:00

Date Received: Field Prep:

07/30/18 Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	99		60-140



Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number: L1831651

Project Number: 101869.00 **Report Date:** 05/13/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Cooler Custody Seal

N/A Absent

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рH	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L1831651-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1831651-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1831651-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1831651-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1831651-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1831651-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)
L1831651-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30)



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:05/13/19

GLOSSARY

Acronyms

EDL

LOQ

MS

NP

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

 Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

 - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

 Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

values; although the RPD value will be provided in the report.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less

than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:05/13/19

 The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- The lower value for the two columns has been reported due to obvious interference.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- ${f P}$ The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1831651Project Number:101869.00Report Date:05/13/19

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



ID No.:17873

Revision 12

Alpha Analytical, Inc. Facility: Company-wide Department: Quality Assurance

Published Date: 10/9/2018 4:58:19 PM Title: Certificate/Approval Program Summary Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-

Tetramethylbenzene: 4-Ethyltoluene

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE,

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

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7

			Fore River Study	Field Form 6/2018			
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Collect Date:	1 /2						
Site ID ,	Canister Id	Regulator ID	Start Time (D\$T)	Start Vacuum	Collect Time (DST)	e. Tre	
0; (1)	2257	0044	11.21	-3947	1):07	End Vacuym	Comments/Observations
Q (2)	1623	0850	11.24	-30.43	1109	- 6.0	The condot
B,	970	8967	120 mu	-30-21	113700		
W.	15291	0335	1220pm	- 3/.07	.11:54am		
LI.	705	0201	-> (0)		11.57015	-7110	
174	10.	0206	1211pm	-30,07	12.3 Mm	-6,42	
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ANALYTICAL REPORT

Lab Number: L1832609

Client: Massachusetts DEP

Senator William X. Wall Experiment Stati

37 Shattuck Street Lawrence, MA 01843

Thomas McGrath

Phone: (978) 242-1318

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Report Date: 05/13/19

ATTN:

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806 508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1832609

Report Date: 05/13/19

	Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L	_1832609-01	Q1081218-1	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 10:13	08/20/18
L	_1832609-02	Q1081218-2	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 10:14	08/20/18
L	_1832609-03	B1081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 10:50	08/20/18
L	_1832609-04	W1081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 11:07	08/20/18
L	_1832609-05	H1081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 11:37	08/20/18
L	_1832609-06	W2081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 11:57	08/20/18
L	_1832609-07	B081218	AIR	QUINCY WEYMOUTH BRAINTREE	08/13/18 00:00	08/20/18



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

Project Number: 101869.00 **Report Date:** 05/13/19

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
В	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
С	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A re	A response to questions G, H and I is required for "Presumptive Certainty" status							
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO						
Н	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES						
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES						

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1832609Project Number:101869.00Report Date:05/13/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.	



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

05/13/19 **Project Number:** 101869.00 **Report Date:**

Case Narrative (continued)

Report Revision

May 10, 2019: This report replaces the one previously issued on August 27, 2018. The report has been amended to report additional compounds at the request of the client.

MCP Related Narratives

Canisters were released from the laboratory on August 10, 2018. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1832609-03 and -07: The canister vacuum measured on receipt at the laboratory was > 15 in. Hg. The canister was pressurized with UHP nitrogen to facilitate transfer of sample for analysis. The reporting limits have been elevated accordingly.

Sample Receipt

The sample designated B1081218 (L1832609-03) had a RPD for the pre- and post-flow controller calibration check (200% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 3.3 mL/minute; the final flow rate was 0.0mL/minute. The final pressure recorded by the laboratory of the associated canister was -19.4 inches of mercury.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Christopher J. Anderson

Authorized Signature:

Date: 05/13/19 Title: Technical Director/Representative

QC OUTLIER SUMMARY REPORT

Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number:

L1832609

Project Number: 101869.00

Report Date:

05/13/19

					Recovery/RPD	QC Limits	Associated	Data Quality
Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	(%)	(%)	Samples	Assessment
MCP Volatil	e Organics in Air by SIM - Mansfield	Lab						
TO-15-SIM	Batch QC	WG1150381-3	Isopropanol	LCS	69	70-130	01-07	potential low bias



AIR



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/13/18 10:13

Client ID: Q1081218-1 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15 Analytical Date: 08/24/18 18:30

Analyst: TS

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air - Mansfi	eld Lab							
Isopropanol	ND	0.500		ND	1.23			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	96		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-01 Date Collected: 08/13/18 10:13

Client ID: Q1081218-1 Date Received: 08/20/18
Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 18:30

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIN	И - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.425	0.200		2.10	0.989			1
Chloromethane	0.415	0.200		0.857	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	1.46	1.00		3.47	2.38			1
Trichlorofluoromethane	0.208	0.050		1.17	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.064	0.050		0.491	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-01 Client ID: Q1081218-1

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:13

Date Received: 08/20/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

Campio Bopani		PpbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.023	0.020		0.112	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.067	0.020		0.421	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.050	0.050		0.188	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-01 Client ID: Q1081218-1

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:13

Date Received: 08/20/18
Field Prep: Not Specified

Campio Bopani	<u> </u>	ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	0.020	0.020		0.207	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1
	- 110	0.000		.,,,	0.000			•

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Methyl Alcohol	1.76	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.61	NJ	ppbV		1
Acetaldehyde	1.10	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/13/18 10:13

Client ID: Q1081218-1 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	99		60-140



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L1832609

Project Number: 101869.00

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-02

Date Collected:

08/13/18 10:14

Client ID:

Q1081218-2

Date Received:

08/20/18

Sample Location:

QUINCY WEYMOUTH BRAINTREE

Field Prep:

Not Specified

Sample Depth:

Matrix:

Air

Anaytical Method: Analytical Date: 101,TO-15 08/24/18 19:48

Analyst:

TS

Parameter		ppbV			ug/m3			Dilution
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air - Ma	ansfield Lab							
Isopropanol	ND	0.500		ND	1.23			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	100		60-140



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-02

Client ID: Q1081218-2

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:14 Date Received: 08/20/18

Date Received: 08/20/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 19:48

Analyst: GJ

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air I	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.418	0.200		2.07	0.989			1
Chloromethane	0.404	0.200		0.834	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	1.42	1.00		3.37	2.38			1
Trichlorofluoromethane	0.191	0.050		1.07	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.065	0.050		0.498	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00 Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-02

Client ID: Q1081218-2 Sample Location:

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:14

Date Received: 08/20/18 Field Prep: Not Specified

оатріє Беріп.	Vdqq			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIN	/I - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.024	0.020		0.117	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	0.210	0.200		0.740	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.070	0.020		0.440	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Frichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Γoluene	0.103	0.050		0.388	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-02 Client ID: Q1081218-2

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:14

Date Received: 08/20/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

сатрю ворит.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	0.060	0.050		0.315	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	13.4	NJ	ppbV		1
Unknown	5.08	J	ppbV		1
unknown alkane	1.14	J	ppbV		1
Unknown	1.29	J	ppbV		1
Silanol, Trimethyl-	36.0	NJ	ppbV		1
Unknown	3.95	J	ppbV		1
Methyl Alcohol	2.77	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/13/18 10:14

Client ID: Q1081218-2 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	103		60-140



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER

Project Number: Report Date: 101869.00 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-03 D Date Collected: 08/13/18 10:50

Client ID: B1081218 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15 Analytical Date: 08/24/18 20:27

Analyst: TS

	ppbV		ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air - Mansf	ield Lab							
Isopropanol	ND	0.970		ND	2.38			1.941

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	97		60-140



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-03 D

Client ID: B1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:50 Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 20:27

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Propylene	ND	0.970		ND	1.67			1.941
Dichlorodifluoromethane	0.442	0.388		2.19	1.92			1.941
Chloromethane	0.439	0.388		0.907	0.801			1.941
Freon-114	ND	0.097		ND	0.678			1.941
Vinyl chloride	ND	0.039		ND	0.099			1.941
1,3-Butadiene	ND	0.039		ND	0.086			1.941
Bromomethane	ND	0.039		ND	0.151			1.941
Chloroethane	ND	0.194		ND	0.512			1.941
Ethanol	ND	9.70		ND	18.3			1.941
Vinyl bromide	ND	0.388		ND	1.70			1.941
Acetone	ND	1.94		ND	4.61			1.941
Trichlorofluoromethane	0.219	0.097		1.23	0.545			1.941
Isopropanol	ND	0.970		ND	2.38			1.941
1,1-Dichloroethene	ND	0.039		ND	0.154			1.941
Methylene chloride	ND	0.970		ND	3.37			1.941
3-Chloropropene	ND	0.388		ND	1.21			1.941
Carbon disulfide	ND	0.388		ND	1.21			1.941
Freon-113	ND	0.097		ND	0.743			1.941
trans-1,2-Dichloroethene	ND	0.039		ND	0.154			1.941
1,1-Dichloroethane	ND	0.039		ND	0.157			1.941
Methyl tert butyl ether	ND	0.388		ND	1.40			1.941
Vinyl acetate	ND	0.388		ND	1.37			1.941
2-Butanone	ND	0.970		ND	2.86			1.941



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-03 D

Client ID: B1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:50

Date Received: 08/20/18
Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.039		ND	0.154			1.941
Ethyl Acetate	ND	0.970		ND	3.50			1.941
Chloroform	ND	0.039		ND	0.189			1.941
Tetrahydrofuran	1.62	0.388		4.78	1.14			1.941
1,2-Dichloroethane	ND	0.039		ND	0.157			1.941
n-Hexane	ND	0.388		ND	1.37			1.941
1,1,1-Trichloroethane	ND	0.039		ND	0.212			1.941
Benzene	ND	0.194		ND	0.620			1.941
Carbon tetrachloride	0.087	0.039		0.549	0.244			1.941
Cyclohexane	ND	0.388		ND	1.34			1.941
1,2-Dichloropropane	ND	0.039		ND	0.179			1.941
Bromodichloromethane	ND	0.039		ND	0.260			1.941
1,4-Dioxane	ND	0.194		ND	0.699			1.941
Trichloroethene	ND	0.039		ND	0.209			1.941
2,2,4-Trimethylpentane	ND	0.388		ND	1.81			1.941
Heptane	ND	0.388		ND	1.59			1.941
cis-1,3-Dichloropropene	ND	0.039		ND	0.176			1.941
4-Methyl-2-pentanone	ND	0.970		ND	3.98			1.941
trans-1,3-Dichloropropene	ND	0.039		ND	0.176			1.941
1,1,2-Trichloroethane	ND	0.039		ND	0.212			1.941
Toluene	0.105	0.097		0.396	0.366			1.941
2-Hexanone	ND	0.388		ND	1.59			1.941
Dibromochloromethane	ND	0.039		ND	0.331			1.941
1,2-Dibromoethane	ND	0.039		ND	0.298			1.941
Tetrachloroethene	ND	0.039		ND	0.263			1.941
1,1,1,2-Tetrachloroethane	ND	0.039		ND	0.266			1.941



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-03 D

Client ID: B1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:50

Date Received: 08/20/18
Field Prep: Not Specified

Campie Beptii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	/ SIM - Mansfield	Lab						
Chlorobenzene	ND	0.194		ND	0.893			1.941
Ethylbenzene	ND	0.039		ND	0.169			1.941
p/m-Xylene	ND	0.078		ND	0.337			1.941
Bromoform	ND	0.039		ND	0.401			1.941
Styrene	ND	0.039		ND	0.165			1.941
o-Xylene	ND	0.039		ND	0.169			1.941
1,3,5-Trimethybenzene	ND	0.039		ND	0.191			1.941
1,2,4-Trimethylbenzene	ND	0.039		ND	0.191			1.941
Benzyl chloride	ND	0.388		ND	2.01			1.941
1,3-Dichlorobenzene	ND	0.039		ND	0.233			1.941
1,4-Dichlorobenzene	ND	0.039		ND	0.233			1.941
1,2-Dichlorobenzene	ND	0.039		ND	0.233			1.941
1,2,4-Trichlorobenzene	ND	0.097		ND	0.720			1.941
Naphthalene	ND	0.097		ND	0.509			1.941
Hexachlorobutadiene	ND	0.097		ND	1.03			1.941

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	2.80	NJ	ppbV		1.941
Methyl Alcohol	3.42	NJ	ppbV		1.941
Silanol, Trimethyl-	2.44	NJ	ppbV		1.941



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-03 D

Client ID: B1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 10:50

Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	99		60-140



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/13/18 11:07

Client ID: W1081218 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15 Analytical Date: 08/24/18 21:06

Analyst: TS

	ppbV		ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air - Mans	field Lab							
Isopropanol	ND	0.500		ND	1.23			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	81		60-140
chlorobenzene-d5	84		60-140



Project Number: 101869.00

Lab Number: L1832609

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-04 Client ID: W1081218

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 11:07

Date Received: 08/20/18
Field Prep: Not Specified

Sample Depth:

Sample Location:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 21:06

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.410	0.200		2.03	0.989			1
Chloromethane	0.413	0.200		0.853	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	1.18	1.00		2.80	2.38			1
Trichlorofluoromethane	0.198	0.050		1.11	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.063	0.050		0.483	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-04 Client ID: W1081218

QUINCY WEYMOUTH BRAINTREE

Date Collected:

08/13/18 11:07

Date Received: Field Prep:

08/20/18 Not Specified

Sample Depth:

Sample Location:

Затріе Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.023	0.020		0.112	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.078	0.020		0.491	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
sis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.087	0.050		0.328	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-04 Client ID: W1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 11:07

Date Received: 08/20/18
Field Prep: Not Specified

Campie Deptii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	0.025	0.020		0.258	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	5.15	NJ	ppbV		1
Silanol, Trimethyl-	1.62	NJ	ppbV		1
Methyl Alcohol	1.42	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-04

Client ID: W1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 11:07

Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	85		60-140



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/13/18 11:37

Client ID: H1081218 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15 Analytical Date: 08/24/18 21:45

Analyst: TS

		ppbV			ug/m3			Dilution
Parameter	er Results RL		MDL	Results	ults RL		Qualifier	Factor
MCP Volatile Organics in Air - Mansf	field Lab							
Isopropanol	ND	0.500		ND	1.23			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	79		60-140
chlorobenzene-d5	81		60-140



Project Number: 101869.00

Lab Number:

L1832609

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-05

Client ID: H1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 0

08/13/18 11:37

Date Received: Field Prep:

08/20/18 Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 21:45

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.402	0.200		1.99	0.989			1
Chloromethane	0.399	0.200		0.824	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	1.33	1.00		3.16	2.38			1
Trichlorofluoromethane	0.206	0.050		1.16	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.065	0.050		0.498	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00 Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-05

Client ID: H1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE Date Collected:

08/13/18 11:37

Date Received: Field Prep:

08/20/18 Not Specified

Sample Depth:

ppbV ug/m3 **Dilution Factor** RL Qualifier Results MDL **Parameter** RL Results MDL MCP Volatile Organics in Air by SIM - Mansfield Lab cis-1,2-Dichloroethene ND 0.020 ND 0.079 1 Ethyl Acetate ND 0.500 ND 1.80 1 ----Chloroform 0.025 0.020 0.122 0.098 1 Tetrahydrofuran ND 0.200 ND 0.590 ----1 1,2-Dichloroethane ND 1 0.020 ND 0.081 n-Hexane ND 0.200 ND 0.705 1 ----1,1,1-Trichloroethane ND 0.020 ND 0.109 ----1 Benzene ND 0.100 ND 0.319 1 Carbon tetrachloride 0.067 0.020 0.421 0.126 1 ----Cyclohexane ND 0.200 ND 0.688 1 ----1,2-Dichloropropane ND 0.020 ND 0.092 1 Bromodichloromethane ND 0.020 --ND 0.134 --1 1,4-Dioxane ND 0.100 ND 0.360 1 Trichloroethene ND 0.020 ND 0.107 1 2,2,4-Trimethylpentane ND 0.200 ND 0.934 1 ----Heptane ND 0.200 ND 0.820 1 cis-1,3-Dichloropropene 0.020 ND --ND 0.091 --1 4-Methyl-2-pentanone ND 0.500 ND 2.05 1 trans-1,3-Dichloropropene ND 0.020 --ND 0.091 --1 1,1,2-Trichloroethane ND 0.020 ND 0.109 1 ----Toluene ND 0.050 ND 0.188 1 2-Hexanone ND 0.200 --ND 0.820 --1 Dibromochloromethane ND 0.020 __ ND 0.170 __ 1 1,2-Dibromoethane ND 0.020 ND 0.154 1 Tetrachloroethene ND 0.020 ND 0.136 1 ----1,1,1,2-Tetrachloroethane ND 0.020 ND 0.137 1



Project Name: Lab Number: **BAW - WEYMOUTH FORE RIVER**

Project Number: 101869.00 Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-05 Date Collected: 08/13/18 11:37

Client ID: H1081218 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Campie Dopuii		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	0.026	0.020		0.269	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
Methyl Alcohol	1.55	NJ	ppbV		1
Silanol, Trimethyl-	1.29	NJ	ppbV		1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-05

Client ID: H1081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 11:37

Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	77		60-140
chlorobenzene-d5	82		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number:

Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: Date Collected: 08/13/18 11:57

Client ID: W2081218 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15 Analytical Date: 08/24/18 22:23

Analyst: TS

		ppbV			ug/m3			Dilution
Parameter	er Results RL		MDL	Results	ults RL		Qualifier	Factor
MCP Volatile Organics in Air - Mansf	field Lab							
Isopropanol	ND	0.500		ND	1.23			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	89		60-140



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-06

Client ID: W2081218

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08

08/13/18 11:57

Date Received: Field Prep:

08/20/18 Not Specified

Sample Depth:

Sample Location:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 22:23

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	0.415	0.200		2.05	0.989			1
Chloromethane	0.409	0.200		0.845	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	1.31	1.00		3.11	2.38			1
Trichlorofluoromethane	0.202	0.050		1.14	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	0.061	0.050		0.468	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-06 Client ID: W2081218

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08

08/13/18 11:57

Date Received: Field Prep:

08/20/18 Not Specified

Sample Depth:

Sample Location:

Sample Depth:	ppbV ug/m3			Dilution				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	0.031	0.020		0.151	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	0.075	0.020		0.472	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	0.060	0.050		0.226	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-06 Client ID: W2081218

QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/

08/13/18 11:57

Date Received: Field Prep:

08/20/18 Not Specified

Sample Depth:

Sample Location:

Campio Dopuii	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by S	IM - Mansfield	Lab						
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	0.023	0.020		0.238	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	0.058	0.050		0.304	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Acetaldehyde	1.04	NJ	ppbV		1
Cyclotrisiloxane, Hexamethyl-	2.89	NJ	ppbV		1
Silanol, Trimethyl-	3.18	NJ	ppbV		1
Methyl Alcohol	1.43	NJ	ppbV		1



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-06 Date Collected: 08/13/18 11:57

Client ID: W2081218 Date Received: 08/20/18

Sample Location: QUINCY WEYMOUTH BRAINTREE Field Prep: Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	91		60-140



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-07 D

Client ID: B081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 00:00

Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 101,TO-15 Analytical Date: 08/24/18 23:03

Analyst: TS

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier F	Factor
MCP Volatile Organics in Air - Mansf	ield Lab							
Isopropanol	ND	1.15		ND	2.83			2.302

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	92		60-140



Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

SAMPLE RESULTS

Lab ID: L1832609-07 D

Client ID: B081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 00:00

Date Received: 08/20/18
Field Prep: Not Specified

Sample Depth:

Matrix: Air

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 23:03

Analyst: GJ

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air	by SIM - Mansfield	Lab						
Propylene	ND	1.15		ND	1.98			2.302
Dichlorodifluoromethane	ND	0.460		ND	2.27			2.302
Chloromethane	0.534	0.460		1.10	0.950			2.302
Freon-114	ND	0.115		ND	0.804			2.302
Vinyl chloride	ND	0.046		ND	0.118			2.302
1,3-Butadiene	ND	0.046		ND	0.102			2.302
Bromomethane	ND	0.046		ND	0.179			2.302
Chloroethane	ND	0.230		ND	0.607			2.302
Ethanol	ND	11.5		ND	21.7			2.302
Vinyl bromide	ND	0.460		ND	2.01			2.302
Acetone	8.55	2.30		20.3	5.46			2.302
Trichlorofluoromethane	0.223	0.115		1.25	0.646			2.302
Isopropanol	ND	1.15		ND	2.83			2.302
1,1-Dichloroethene	ND	0.046		ND	0.182			2.302
Methylene chloride	3.86	1.15		13.4	4.00			2.302
3-Chloropropene	ND	0.460		ND	1.44			2.302
Carbon disulfide	2.30	0.460		7.16	1.43			2.302
Freon-113	ND	0.115		ND	0.881			2.302
trans-1,2-Dichloroethene	ND	0.046		ND	0.182			2.302
1,1-Dichloroethane	ND	0.046		ND	0.186			2.302
Methyl tert butyl ether	ND	0.460		ND	1.66			2.302
Vinyl acetate	1.26	0.460		4.44	1.62			2.302
2-Butanone	ND	1.15		ND	3.39			2.302



Project Number: 101869.00

Lab Number:

L1832609

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-07 D

Client ID: B081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 00:00

Date Received: 08/20/18
Field Prep: Not Specified

•	ppbV ug/m3				Dilution			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	y SIM - Mansfield	Lab						
cis-1,2-Dichloroethene	ND	0.046		ND	0.182			2.302
Ethyl Acetate	ND	1.15		ND	4.14			2.302
Chloroform	0.092	0.046		0.450	0.225			2.302
Tetrahydrofuran	3.33	0.460		9.82	1.36			2.302
,2-Dichloroethane	ND	0.046		ND	0.186			2.302
n-Hexane	2.69	0.460		9.48	1.62			2.302
1,1,1-Trichloroethane	ND	0.046		ND	0.251			2.302
Benzene	ND	0.230		ND	0.735			2.302
Carbon tetrachloride	0.071	0.046		0.449	0.289			2.302
Cyclohexane	1.70	0.460		5.85	1.58			2.302
,2-Dichloropropane	ND	0.046		ND	0.213			2.302
Bromodichloromethane	ND	0.046		ND	0.308			2.302
,4-Dioxane	ND	0.230		ND	0.829			2.302
richloroethene	ND	0.046		ND	0.247			2.302
2,2,4-Trimethylpentane	ND	0.460		ND	2.15			2.302
Heptane	ND	0.460		ND	1.89			2.302
cis-1,3-Dichloropropene	ND	0.046		ND	0.209			2.302
1-Methyl-2-pentanone	1.26	1.15		5.16	4.71			2.302
rans-1,3-Dichloropropene	ND	0.046		ND	0.209			2.302
,1,2-Trichloroethane	ND	0.046		ND	0.251			2.302
Foluene	0.449	0.115		1.69	0.433			2.302
2-Hexanone	ND	0.460		ND	1.89			2.302
Dibromochloromethane	ND	0.046		ND	0.392			2.302
,2-Dibromoethane	ND	0.046		ND	0.354			2.302
Tetrachloroethene	0.067	0.046		0.453	0.312			2.302
1,1,1,2-Tetrachloroethane	ND	0.046		ND	0.316			2.302



Project Number: 101869.00

Lab Number:

L1832609

Report Date: 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-07 D

Client ID: B081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 00:00

Date Received: 08/20/18
Field Prep: Not Specified

Campio Dopuii.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by	SIM - Mansfield	Lab						
Chlorobenzene	ND	0.230		ND	1.06			2.302
Ethylbenzene	0.081	0.046		0.350	0.200			2.302
p/m-Xylene	0.311	0.092		1.35	0.400			2.302
Bromoform	ND	0.046		ND	0.476			2.302
Styrene	0.055	0.046		0.235	0.196			2.302
o-Xylene	0.106	0.046		0.460	0.200			2.302
1,3,5-Trimethybenzene	ND	0.046		ND	0.226			2.302
1,2,4-Trimethylbenzene	0.129	0.046		0.634	0.226			2.302
Benzyl chloride	ND	0.460		ND	2.38			2.302
1,3-Dichlorobenzene	ND	0.046		ND	0.277			2.302
1,4-Dichlorobenzene	ND	0.046		ND	0.277			2.302
1,2-Dichlorobenzene	ND	0.046		ND	0.277			2.302
1,2,4-Trichlorobenzene	ND	0.115		ND	0.854			2.302
Naphthalene	ND	0.115		ND	0.603			2.302
Hexachlorobutadiene	ND	0.115		ND	1.23			2.302

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	3.13	NJ	ppbV		2.302
Silanol, Trimethyl-	2.39	NJ	ppbV		2.302
Methyl Alcohol	129	NJ	ppbV		2.302



Project Number: 101869.00 **Report Date:** 05/13/19

SAMPLE RESULTS

Lab ID: L1832609-07 D

Client ID: B081218

Sample Location: QUINCY WEYMOUTH BRAINTREE

Date Collected: 08/13/18 00:00

Date Received: 08/20/18

Field Prep: Not Specified

Sample Depth:

MCP Volatile Organics in Air by SIM - Mansfield Lab

Dilution Results Qualifier Units RDL Factor

Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	93		60-140



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 15:47

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	150381-	-4	
Propylene	ND	0.500		ND	0.861			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	0.200		ND	0.704			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Ethyl Acetate	ND	0.500		ND	1.80			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 15:47

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIN	M - Mansfield	Lab for sa	ample(s):	01-07 Batcl	n: WG1	150381-	4	
Chloroform	ND	0.020		ND	0.098			1
Tetrahydrofuran	ND	0.200		ND	0.590			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
n-Hexane	ND	0.200		ND	0.705			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
Cyclohexane	ND	0.200		ND	0.688			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1



Project Name: BAW - WEYMOUTH FORE RIVER Lab Number: L1832609

Project Number: 101869.00 **Report Date:** 05/13/19

Method Blank Analysis Batch Quality Control

Analytical Method: 101,TO-15-SIM Analytical Date: 08/24/18 15:47

	ppbV					Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
MCP Volatile Organics in Air by SIM	- Mansfield	Lab for sa	ample(s):	01-07 Bato	h: WG1	150381-	4	
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
o-Xylene	ND	0.020		ND	0.087			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

arameter	LCS %Recovery		.CSD ecovery	%Recov Qual Limits		Qual	RPD Limits
MCP Volatile Organics in Air by SIM -	Mansfield Lab Associa	ated sample(s): 01-	07 Batch:	WG1150381-3			
Propylene	94		-	70-130	-		
Dichlorodifluoromethane	84		-	70-130	-		
Chloromethane	75		-	70-130	-		
Freon-114	79		-	70-130	-		
Vinyl chloride	77		-	70-130	-		
1,3-Butadiene	80		-	70-130	-		
Bromomethane	78		-	70-130	-		
Chloroethane	78		-	70-130	-		
Ethanol	80		-	70-130	-		
Vinyl bromide	76		-	70-130	-		
Acetone	76		-	50-150	-		
Trichlorofluoromethane	91		-	70-130	-		
Isopropanol	69	Q	-	70-130	-		
1,1-Dichloroethene	84		-	70-130	-		
Methylene chloride	86		-	70-130	-		
3-Chloropropene	93		-	70-130	-		
Carbon disulfide	75		-	70-130	-		
Freon-113	83		-	70-130	-		
trans-1,2-Dichloroethene	91		-	70-130	-		
1,1-Dichloroethane	96		-	70-130	-		
Methyl tert butyl ether	93		-	70-130	-		
Vinyl acetate	107		-	70-130	-		
2-Butanone	102		-	70-130	-		



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1832609

		Qual %	Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Man	sfield Lab Associa	ited sample(s): 0	11-07 Batch:	WG1150381-3	3			
cis-1,2-Dichloroethene	92		-		70-130	-		
Ethyl Acetate	94		-		70-130	-		
Chloroform	99		-		70-130	-		
Tetrahydrofuran	99		-		70-130	-		
1,2-Dichloroethane	98		-		70-130	-		
n-Hexane	94		-		70-130	-		
1,1,1-Trichloroethane	103		-		70-130	-		
Benzene	89		-		70-130	-		
Carbon tetrachloride	102		-		70-130	-		
Cyclohexane	91		-		70-130	-		
1,2-Dichloropropane	92		-		70-130	-		
Bromodichloromethane	102		-		70-130	-		
1,4-Dioxane	103		-		50-150	-		
Trichloroethene	97		-		70-130	-		
2,2,4-Trimethylpentane	101		-		70-130	-		
cis-1,3-Dichloropropene	85		-		70-130	-		
4-Methyl-2-pentanone	108		-		70-130	-		
trans-1,3-Dichloropropene	98		-		70-130	-		
1,1,2-Trichloroethane	104		-		70-130	-		
Toluene	93		-		70-130	-		
2-Hexanone	108		-		70-130	-		
Dibromochloromethane	108		-		70-130	-		
1,2-Dibromoethane	98		-		70-130	-		

Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1832609

Parameter	LCS %Recovery	Qual	LCS %Reco		Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mans	field Lab Associa	ated sample(s):	01-07	Batch:	WG115038	81-3			
Tetrachloroethene	99		-			70-130	-		
Chlorobenzene	96		-			70-130	-		
Ethylbenzene	97		-			70-130	-		
p/m-Xylene	97		-			70-130	-		
Bromoform	106		-			70-130	-		
Styrene	98		-			70-130	-		
o-Xylene	97		-			70-130	-		
1,3,5-Trimethybenzene	99		-			70-130	-		
1,2,4-Trimethylbenzene	103		-			70-130	-		
Benzyl chloride	118		-			70-130	-		
1,3-Dichlorobenzene	106		-			70-130	-		
1,4-Dichlorobenzene	106		-			70-130	-		
1,2-Dichlorobenzene	90		-			70-130	-		
1,2,4-Trichlorobenzene	112		-			50-150	-		
Naphthalene	107		-			50-150	-		
Hexachlorobutadiene	109		-			50-150	-		

Project Name: BAW - WEYMOUTH FORE RIVER

Lab Number:

L1832609

Project Number: 101869.00

Report Date:

05/13/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
MCP Volatile Organics in Air - Mansfield Lab	Associated sam	ple(s): 01-07	Batch: WG1	236540-3					
Isopropanol	72		-		50-150	-			



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number: L1832609

arameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
ICP Volatile Organics in Air by SIM - Mansfield Lab 1081218-1	Associated sample(s):	01-07 QC Batch ID:	WG1150381-5	QC Sample	: L1832609-01 Client ID:
Propylene	ND	ND	ppbV	NC	25
Dichlorodifluoromethane	0.425	0.427	ppbV	0	25
Chloromethane	0.415	0.411	ppbV	1	25
Freon-114	ND	ND	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
1,3-Butadiene	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
Ethanol	ND	ND	ppbV	NC	25
Vinyl bromide	ND	ND	ppbV	NC	25
Acetone	1.46	1.46	ppbV	0	25
Trichlorofluoromethane	0.208	0.207	ppbV	0	25
Isopropanol	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
3-Chloropropene	ND	ND	ppbV	NC	25
Carbon disulfide	ND	ND	ppbV	NC	25
Freon-113	0.064	0.066	ppbV	3	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1832609

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Q1081218-1	•	-	WG1150381-5		L1832609-01 Client ID:
Vinyl acetate	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	0.023	0.023	ppbV	0	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.067	0.072	ppbV	7	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25



Project Name: BAW - WEYMOUTH FORE RIVER

Project Number: 101869.00

Lab Number:

L1832609

Parameter	Native Sample	Duplicate Sample	Units	RPD		PD mits
	_					
ICP Volatile Organics in Air by SIM - Mansfield Lal 21081218-1	o Associated sample(s):	01-07 QC Batch ID:	WG1150381-5	QC Sample:	: L1832609-01	Client ID:
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.050	ND	ppbV	NC		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	0.020	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
1,3,5-Trimethybenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Naphthalene	ND	ND	ppbV	NC		25



Project Name: BAW - WEYMOUTH FORE RIVER Bato

Project Number: 101869.00

Lab Number:

L1832609

Report Date:

05/13/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	= =	PD mits
MCP Volatile Organics in Air by SIM - Mansfiel Q1081218-1	d Lab Associated sample(s):	01-07 QC Batch ID:	WG1150381-5	QC Sample	: L1832609-01	Client ID:
Hexachlorobutadiene	ND	ND	ppbV	NC		25
MCP Volatile Organics in Air - Mansfield Lab A	Associated sample(s): 01-07	QC Batch ID: WG123	36540-5 QC Sa	mple: L1832	2609-01 Client	ID: Q1081218-1
Isopropanol	ND	ND	ppbV	NC		25



BAW - WEYMOUTH FORE RIVER L1832609

Project Number: 101869.00 Report Date: 05/13/19

Canister and Flow Controller Information

			Media Type	Date	Bottle	Cleaning	Can Leak	Initial Pressure	Pressure on Receipt	Flow Controler	Flow Out	Flow In	
Samplenum	Client ID	Media ID	wedia Type	Prepared	Order	Batch ID	Check	(in. Hg)	(in. Hg)	Leak Chk	mL/min	mL/min	% RPD
L1832609-01	Q1081218-1	0846	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.7	11
L1832609-01	Q1081218-1	1601	6.0L Can	08/10/18	269581	L1829418-03	Pass	-29.6	-6.2	-	-	-	-
L1832609-02	Q1081218-2	0226	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.6	9
L1832609-02	Q1081218-2	2583	6.0L Can	08/10/18	269581	L1829418-02	Pass	-29.6	-2.2	-	-	-	-
L1832609-03	B1081218	0424	Flow 4	08/10/18	269581		-	-	-	Pass	3.3	0.0	200
L1832609-03	B1081218	597	6.0L Can	08/10/18	269581	L1829418-01	Pass	-29.6	-19.4	-	-	-	-
L1832609-04	W1081218	0771	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.7	11
L1832609-04	W1081218	1972	6.0L Can	08/10/18	269581	L1830481-03	Pass	-29.5	-4.7	-	-	-	-
L1832609-05	H1081218	0364	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.6	9
L1832609-05	H1081218	1841	6.0L Can	08/10/18	269581	L1830971-01	Pass	-29.5	-4.1	-	-	-	-
L1832609-06	W2081218	0321	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.6	9
L1832609-06	W2081218	2275	6.0L Can	08/10/18	269581	L1830971-02	Pass	-29.5	-4.8	-	-	-	-
L1832609-07	B081218	0118	Flow 5	08/10/18	269581		-	-	-	Pass	3.3	3.7	11
L1832609-07	B081218	1796	6.0L Can	08/10/18	269581	L1830481-02	Pass	-29.5	-22.7	-	-	-	-



Project Name:

L1829418

07/30/18 16:00

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829418-01

Date Collected: Client ID: **CAN 597 SHELF 57** Date Received:

07/31/18 Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 07/31/18 21:43

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1829418

07/30/18 16:00

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-01

Date Collected: Client ID: **CAN 597 SHELF 57** Date Received:

Sample Location:

07/31/18 Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1829418

07/30/18 16:00

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-01

Date Collected: Client ID: **CAN 597 SHELF 57**

Sample Location:

Date Received: 07/31/18 Field Prep: Not Specified

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-01

Date Collected: 07/30/18 16:00 Client ID: **CAN 597 SHELF 57** Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1829418

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-01

Date Collected: 07/30/18 16:00 Client ID: **CAN 597 SHELF 57** Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829418-01

Date Collected: 07/30/18 16:00 Client ID: **CAN 597 SHELF 57** Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/31/18 21:43

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1829418

07/30/18 16:00

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-01

Date Collected: Client ID: **CAN 597 SHELF 57** Date Received:

Sample Location:

07/31/18 Field Prep: Not Specified

	<u> </u>	ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1829418

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829418-01

Client ID: CAN 597 SHELF 57

Sample Location:

Date Collected:

07/30/18 16:00

Date Received:

07/31/18

Field Prep: Not Specified

• •		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - N	Nansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	98		60-140



Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT

Lab Number:

L1829418

Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829418-02

Client ID: CAN 2583 SHELF 58

Sample Location:

Date Collected: 07/30/18 16:00 Date Received: 07/31/18

Field Prep:

Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/31/18 22:22

Analyst: RY

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: CAN 2583 SHELF 58 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: CAN 2583 SHELF 58 Date Received: 07/31/18

Sample Location: Field Prep:

Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	d Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: CAN 2583 SHELF 58 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

оатре Берт.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal	b							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
1-Chlorotoluene	ND	0.200		ND	1.04			1
1-Ethyltoluene	ND	0.200		ND	0.983			1
,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



07/30/18 16:00

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1829418

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-02

Date Collected: Client ID: **CAN 2583 SHELF 58** Date Received:

07/31/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: **CAN 2583 SHELF 58** Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/31/18 22:22

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-02

Date Collected: 07/30/18 16:00 Client ID: CAN 2583 SHELF 58 Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



07/30/18 16:00

Date Collected:

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1829418

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-02

CAN 2583 SHELF 58 Client ID: Date Received:

07/31/18 Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	99		60-140



Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT

Lab Number:

L1829418

Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829418-03

Client ID: CAN 1601 SHELF 59

Sample Location:

Date Collected: 07/30/18 16:00 Date Received: 07/31/18

Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/31/18 23:00

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab	1							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: CAN 1601 SHELF 59 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

		Vdqq			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1829418

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: CAN 1601 SHELF 59 Date Received: 07/31/18

Sample Location: Field Prep:

Запре Верш.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: CAN 1601 SHELF 59 Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lat)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1829418

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-03

Date Collected: Client ID: **CAN 1601 SHELF 59**

Date Received: 07/31/18

Field Prep: Not Specified

07/30/18 16:00

Sample Depth:

Sample Location:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	95		60-140



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: **CAN 1601 SHELF 59** Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 07/31/18 23:00

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1829418

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: CAN 1601 SHELF 59 Date Received: 07/31/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Man	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1829418

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1829418-03

Date Collected: 07/30/18 16:00 Client ID: CAN 1601 SHELF 59 Date Received: 07/31/18

Sample Location: Field Prep: Not Specified

Campic Doptin.								
	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria		
1,4-difluorobenzene	96		60-140		
bromochloromethane	96		60-140		
chlorobenzene-d5	101		60-140		



L1830481

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 08/07/18 19:21

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1830481

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

Затріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	b							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1830481

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location: Field Prep:

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1830481

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

оатріє Беріп.		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



08/06/18 16:00

Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1830481

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-02

Date Collected: Client ID: **CAN 1796 SHELF 43** Date Received:

08/07/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140



L1830481

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 08/07/18 19:21

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1830481

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - Mans	sfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1830481

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-02

Date Collected: 08/06/18 16:00 Client ID: CAN 1796 SHELF 43 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	97		60-140



L1830481

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 08/07/18 20:00

Analyst: RY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1830481

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1830481

Not Specified

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: **CAN 1972 SHELF 44** Date Received: 08/07/18

Sample Location: Field Prep:

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield La	ab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1-Methyl-2-pentanone	ND	0.500		ND	2.05			1
rans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
,1,2-Trichloroethane	ND	0.200		ND	1.09			1
oluene	ND	0.200		ND	0.754			1
,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
o/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1830481

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

Volatile Organics in Air - Mansfield Lab Nonane ND 0.200 ND Isopropylbenzene ND 0.200 ND	1.05 0.983 0.793	Factor 1
Nonane ND 0.200 ND Isopropylbenzene ND 0.200 ND	0.983	
Isopropylbenzene ND 0.200 ND	0.983	
		4
Bromobenzene ND 0.200 ND	0.793	1
		1
2-Chlorotoluene ND 0.200 ND	1.04	1
n-Propylbenzene ND 0.200 ND	0.983	1
4-Chlorotoluene ND 0.200 ND	1.04	1
4-Ethyltoluene ND 0.200 ND	0.983	1
1,3,5-Trimethylbenzene ND 0.200 ND	0.983	1
ert-Butylbenzene ND 0.200 ND	1.10	1
,2,4-Trimethylbenzene ND 0.200 ND	0.983	1
Decane ND 0.200 ND	1.16	1
Benzyl chloride ND 0.200 ND	1.04	1
,3-Dichlorobenzene ND 0.200 ND	1.20	1
,4-Dichlorobenzene ND 0.200 ND	1.20	1
sec-Butylbenzene ND 0.200 ND	1.10	1
o-Isopropyltoluene ND 0.200 ND	1.10	1
1,2-Dichlorobenzene ND 0.200 ND	1.20	1
n-Butylbenzene ND 0.200 ND	1.10	1
1,2-Dibromo-3-chloropropane ND 0.200 ND	1.93	1
Undecane ND 0.200 ND	1.28	1
Dodecane ND 0.200 ND	1.39	1
,2,4-Trichlorobenzene ND 0.200 ND	1.48	1
Naphthalene ND 0.200 ND	1.05	1
1,2,3-Trichlorobenzene ND 0.200 ND	1.48	1
Hexachlorobutadiene ND 0.200 ND	2.13	1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1830481

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: **CAN 1972 SHELF 44** Date Received:

08/07/18 Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution **Factor** RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

Dilution **Factor** Results Qualifier Units RDL

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140



Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

L1830481 **Project Number:** CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: **CAN 1972 SHELF 44** Date Received: 08/07/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 08/07/18 20:00

Analyst: RY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319		J	1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1830481

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

Заттріе Беріті.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	lansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1830481

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830481-03

Date Collected: 08/06/18 16:00 Client ID: CAN 1972 SHELF 44 Date Received: 08/07/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	97		60-140



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 08/09/18 17:41

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab)							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Запріє Беріп.	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	l Lab							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
tert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Undecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1830971

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1830971-01

Client ID: CAN 1841 SHELF 52

Sample Location:

Date Collected:

08/08/18 16:00

Date Received:

08/09/18

Field Prep:

Not Specified

Sample Depth:

Parameter Results RL MDL Results RL MDL Qualifier Factor

Volatile Organics in Air - Mansfield Lab

Dilution
Results Qualifier Units RDL Factor

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 08/09/18 17:41

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	l - Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

	ppbV ug/m3			Dilution				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
o/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



Project Name: Lab Number: **BATCH CANISTER CERTIFICATION** L1830971

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-01

Date Collected: 08/08/18 16:00 Client ID: CAN 1841 SHELF 52 Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	92		60-140



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: **CAN 2275 SHELF 45** Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air Anaytical Method: 48,TO-15 Analytical Date: 08/09/18 18:16

Analyst: MB

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Chlorodifluoromethane	ND	0.200		ND	0.707			1
Propylene	ND	0.500		ND	0.861			1
Propane	ND	0.500		ND	0.902			1
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Methanol	ND	5.00		ND	6.55			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Butane	ND	0.200		ND	0.475			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Dichlorofluoromethane	ND	0.200		ND	0.842			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acrolein	ND	0.500		ND	1.15			1
Acetone	ND	1.00		ND	2.38			1
Acetonitrile	ND	0.200		ND	0.336			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
Acrylonitrile	ND	0.500		ND	1.09			1
Pentane	ND	0.200		ND	0.590			1
Ethyl ether	ND	0.200		ND	0.606			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 CAN 2275 SHELF 45 Client ID: Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

		ppbV	vV ug/m3			Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lal)							
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
Vinyl acetate	ND	1.00		ND	3.52			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	ND	0.500		ND	1.47			1
2,2-Dichloropropane	ND	0.200		ND	0.924			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	ND	0.200		ND	0.705			1
Diisopropyl ether	ND	0.200		ND	0.836			1
tert-Butyl Ethyl Ether	ND	0.200		ND	0.836			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
1,1-Dichloropropene	ND	0.200		ND	0.908			1
Benzene	ND	0.200		ND	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	ND	0.200		ND	0.688			1
tert-Amyl Methyl Ether	ND	0.200		ND	0.836			1
Dibromomethane	ND	0.200		ND	1.42			1
1,2-Dichloropropane	ND	0.200		ND	0.924			1



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 CAN 2275 SHELF 45 Client ID: Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

ppbV			ug/m3		Dilution			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Bromodichloromethane	ND	0.200		ND	1.34			1
1,4-Dioxane	ND	0.200		ND	0.721			1
Trichloroethene	ND	0.200		ND	1.07			1
2,2,4-Trimethylpentane	ND	0.200		ND	0.934			1
Methyl Methacrylate	ND	0.500		ND	2.05			1
Heptane	ND	0.200		ND	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.200		ND	0.908			1
1,1,2-Trichloroethane	ND	0.200		ND	1.09			1
Toluene	ND	0.200		ND	0.754			1
1,3-Dichloropropane	ND	0.200		ND	0.924			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Butyl acetate	ND	0.500		ND	2.38			1
Octane	ND	0.200		ND	0.934			1
Tetrachloroethene	ND	0.200		ND	1.36			1
1,1,1,2-Tetrachloroethane	ND	0.200		ND	1.37			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	ND	0.200		ND	0.869			1
p/m-Xylene	ND	0.400		ND	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
1,2,3-Trichloropropane	ND	0.200		ND	1.21			1



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: CAN 2275 SHELF 45 Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Sample Depth:		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield Lat)							
Nonane	ND	0.200		ND	1.05			1
Isopropylbenzene	ND	0.200		ND	0.983			1
Bromobenzene	ND	0.200		ND	0.793			1
2-Chlorotoluene	ND	0.200		ND	1.04			1
n-Propylbenzene	ND	0.200		ND	0.983			1
4-Chlorotoluene	ND	0.200		ND	1.04			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
ert-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Decane	ND	0.200		ND	1.16			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
,4-Dichlorobenzene	ND	0.200		ND	1.20			1
sec-Butylbenzene	ND	0.200		ND	1.10			1
o-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2-Dibromo-3-chloropropane	ND	0.200		ND	1.93			1
Jndecane	ND	0.200		ND	1.28			1
Dodecane	ND	0.200		ND	1.39			1
,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Naphthalene	ND	0.200		ND	1.05			1
1,2,3-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1830971

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: **CAN 2275 SHELF 45** Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

Sample Depth:

ppbV ug/m3 Dilution Factor RLResults RL MDL Qualifier **Parameter** Results MDL

Volatile Organics in Air - Mansfield Lab

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	2.3	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: **CAN 2275 SHELF 45** Date Received: 08/09/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Matrix: Air

Anaytical Method: 48,TO-15-SIM Analytical Date: 08/09/18 18:16

Analyst: MB

-	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM -	Mansfield Lab							
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.050		ND	0.349			1
Vinyl chloride	ND	0.020		ND	0.051			1
1,3-Butadiene	ND	0.020		ND	0.044			1
Bromomethane	ND	0.020		ND	0.078			1
Chloroethane	ND	0.100		ND	0.264			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.050		ND	0.281			1
Acrylonitrile	ND	0.500		ND	1.09			1
1,1-Dichloroethene	ND	0.020		ND	0.079			1
Methylene chloride	ND	0.500		ND	1.74			1
Freon-113	ND	0.050		ND	0.383			1
trans-1,2-Dichloroethene	ND	0.020		ND	0.079			1
1,1-Dichloroethane	ND	0.020		ND	0.081			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47		J	1
cis-1,2-Dichloroethene	ND	0.020		ND	0.079			1
Chloroform	ND	0.020		ND	0.098			1
1,2-Dichloroethane	ND	0.020		ND	0.081			1
1,1,1-Trichloroethane	ND	0.020		ND	0.109			1
Benzene	ND	0.100		ND	0.319			1
Carbon tetrachloride	ND	0.020		ND	0.126			1
1,2-Dichloropropane	ND	0.020		ND	0.092			1



L1830971

Lab Number:

Project Name: BATCH CANISTER CERTIFICATION

Project Number: CANISTER QC BAT **Report Date:** 05/13/19

Air Canister Certification Results

Lab ID: L1830971-02

Date Collected: 08/08/18 16:00 Client ID: **CAN 2275 SHELF 45** Date Received: 08/09/18

Sample Location: Field Prep: Not Specified

Запріє Беріп.		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM - M	ansfield Lab							
Bromodichloromethane	ND	0.020		ND	0.134			1
1,4-Dioxane	ND	0.100		ND	0.360			1
Trichloroethene	ND	0.020		ND	0.107			1
cis-1,3-Dichloropropene	ND	0.020		ND	0.091			1
4-Methyl-2-pentanone	ND	0.500		ND	2.05			1
trans-1,3-Dichloropropene	ND	0.020		ND	0.091			1
1,1,2-Trichloroethane	ND	0.020		ND	0.109			1
Toluene	ND	0.050		ND	0.188			1
Dibromochloromethane	ND	0.020		ND	0.170			1
1,2-Dibromoethane	ND	0.020		ND	0.154			1
Tetrachloroethene	ND	0.020		ND	0.136			1
1,1,1,2-Tetrachloroethane	ND	0.020		ND	0.137			1
Chlorobenzene	ND	0.100		ND	0.461			1
Ethylbenzene	ND	0.020		ND	0.087			1
p/m-Xylene	ND	0.040		ND	0.174			1
Bromoform	ND	0.020		ND	0.207			1
Styrene	ND	0.020		ND	0.085			1
1,1,2,2-Tetrachloroethane	ND	0.020		ND	0.137			1
o-Xylene	ND	0.020		ND	0.087			1
Isopropylbenzene	ND	0.200		ND	0.983			1
4-Ethyltoluene	ND	0.020		ND	0.098			1
1,3,5-Trimethybenzene	ND	0.020		ND	0.098			1
1,2,4-Trimethylbenzene	ND	0.020		ND	0.098			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.020		ND	0.120			1
1,4-Dichlorobenzene	ND	0.020		ND	0.120			1
sec-Butylbenzene	ND	0.200		ND	1.10			1



08/08/18 16:00

Project Name: BATCH CANISTER CERTIFICATION Lab Number: L1830971

Project Number: CANISTER QC BAT Report Date: 05/13/19

Air Canister Certification Results

Lab ID: L1830971-02

Client ID: CAN 2275 SHELF 45 Date Received:

Date Received: 08/09/18
Field Prep: Not Specified

Date Collected:

Sample Location:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air by SIM	- Mansfield Lab							
p-Isopropyltoluene	ND	0.200		ND	1.10			1
1,2-Dichlorobenzene	ND	0.020		ND	0.120			1
n-Butylbenzene	ND	0.200		ND	1.10			1
1,2,4-Trichlorobenzene	ND	0.050		ND	0.371			1
Naphthalene	ND	0.050		ND	0.262			1
1,2,3-Trichlorobenzene	ND	0.050		ND	0.371			1
Hexachlorobutadiene	ND	0.050		ND	0.533			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria		
1,4-difluorobenzene	90		60-140		
bromochloromethane	92		60-140		
chlorobenzene-d5	90		60-140		



BAW - WEYMOUTH FORE RIVER

Lab Number: L1832609

Project Number: 101869.00 **Report Date:** 05/13/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Project Name:

Cooler Custody Seal

N/A Absent

Container Information				Initial	Final	Temp			Frozen	
	Container ID	Container Type		deg C	Pres	Seal	Date/Time	Analysis(*)		
	L1832609-01A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30),MCP-TO15(30)
	L1832609-02A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30),MCP-TO15(30)
	L1832609-03A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30),MCP-TO15(30)
	L1832609-04A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30),MCP-TO15(30)
	L1832609-05A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30),MCP-TO15(30)
	L1832609-06A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30),MCP-TO15(30)
	L1832609-07A	Canister - 6 Liter	N/A	NA			Υ	Absent		MCP-TO15-SIM(30),MCP-TO15(30)



Project Name: Lab Number: BAW - WEYMOUTH FORE RIVER L1832609 **Project Number:** 101869.00 **Report Date:** 05/13/19

GLOSSARY

Acronyms

LOD

MS

RPD

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL

- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of

analytes or a material containing known and verified amounts of analytes.

LCSD Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content,

where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats

> Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats

MDI - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

> - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated

using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEO - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF

and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1832609Project Number:101869.00Report Date:05/13/19

 The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- The lower value for the two columns has been reported due to obvious interference.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- $\label{eq:main_equation} \textbf{M} \qquad \text{-Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.}$
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- ${f P}$ The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name:BAW - WEYMOUTH FORE RIVERLab Number:L1832609Project Number:101869.00Report Date:05/13/19

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc. Facility: Company-wide

Revision 12 Published Date: 10/9/2018 4:58:19 PM Department: Quality Assurance Title: Certificate/Approval Program Summary

Page 1 of 1

ID No.:17873

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: lodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene: 4-Ethyltoluene

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Pre-Qualtrax Document ID: 08-113 Document Type: Form

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